

Access DB# 129047**SEARCH REQUEST FORM****Scientific and Technical Information Center**

Requester's Full Name: TRWAB, Doc Examiner #: 6932 Date: 8/1/04  
 Art Unit: 1711 Phone Number 302-1281 Serial Number: 161642, 873  
 Mail Box and Bldg/Room Location: 1271 Results Format Preferred (circle) PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): \_\_\_\_\_

SCIENTIFIC REFERENCE BR  
Sci. & Tech. Info. Cntr

AUG 4

Earliest Priority Filing Date: \_\_\_\_\_

Pat. & T.M. Office

*\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Formula of claim 7. Thanks.

\*\*\*\*\*

**STAFF USE ONLY**

	Type of Search	Vendors and cost where applicable
Searcher: <u>R. Tuller</u>	NA Sequence (#) _____	STN <u>✓</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>8</u>	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: <u>8/10/04</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>30</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>49</u>	Other _____	Other (specify) _____



# STIC Search Report

## EIC 1700

STIC Database Tracking Number: 129047

TO: Duc Truong

Location: REM6D71

Art Unit : 1711

August 10, 2004

~~6071~~

10071

Case Serial Number: 10/642873

From: Kathleen Fuller

Location: EIC 1700

REMSSEN 4B28

Phone: 571/272-2505

Kathleen.Fuller@uspto.gov

### Search Notes



# STIC Search Results Feedback Form

**EIC17000**

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Kathleen Fuller, EIC 1700 Team Leader  
571/272-2505 REMSEN 4B28

## Voluntary Results Feedback Form

- I am an examiner in Workgroup:  Example: 1713  
➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC1700 REMSEN 4B28



=> FILE REG

FILE 'REGISTRY' ENTERED AT 17:38:25 ON 10 AUG 2004

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 9 AUG 2004 HIGHEST RN 724701-07-9

DICTIONARY FILE UPDATES: 9 AUG 2004 HIGHEST RN 724701-07-9

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:

<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> FILE HCAPLU

FILE 'HCAPLUS' ENTERED AT 17:38:30 ON 10 AUG 2004

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FILE COVERS 1907 - 10 Aug 2004 VOL 141 ISS 7

FILE LAST UPDATED: 9 Aug 2004 (20040809/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> D QUE

L50	134516	SEA FILE=REGISTRY ABB=ON	46.492.16/RID
L51	16503	SEA FILE=REGISTRY ABB=ON	L50 AND PMS/CI
L52	174	SEA FILE=REGISTRY ABB=ON	CARDANOL
L53	3	SEA FILE=REGISTRY ABB=ON	LAURIC ACID/CN OR MYRISTIC ACID/CN OR PALMITIC ACID/CN
L54	7	SEA FILE=REGISTRY ABB=ON	STEARIC ACID/CN OR ARACHIDIC ACID/CN OR PALMITOLEIC ACID/CN OR OLEIC ACID/CN OR RICINOLEIC ACID/CN OR LINOLEIC ACID/CN OR ARACHIDONIC ACID/CN
L55	4	SEA FILE=REGISTRY ABB=ON	DODECYL MERCAPTAN/CN OR PHENYL MERCAPTAN/CN OR LAURYL THIOGLYCOLATE/CN OR OCTYL THIOGLYCOLATE/

CN

L56	27181	SEA FILE=HCAPLUS ABB=ON	L51
L57	127435	SEA FILE=HCAPLUS ABB=ON	L52 OR L53 OR L54 OR L55
L60	7482	SEA FILE=HCAPLUS ABB=ON	L56(L) COPOLYMER?
L62	10	SEA FILE=HCAPLUS ABB=ON	L56(L) L57
L65	41	SEA FILE=HCAPLUS ABB=ON	L56(L) FATTY ACID#(L) COPOLYMER?
L66	836	SEA FILE=HCAPLUS ABB=ON	L57(L) COPOLYMER?
L67	10	SEA FILE=HCAPLUS ABB=ON	L60 AND L66
L68	56	SEA FILE=HCAPLUS ABB=ON	L62 OR L65 OR L67
L69	16	SEA FILE=HCAPLUS ABB=ON	L68 AND (PREP OR IMF OR SPN OR POF)/RL
L70	7564	SEA FILE=REGISTRY ABB=ON	554-63-8/CRN OR 143-07-7/CRN OR 57-10-3/CRN OR 506-32-1/CRN OR 506-30-9/CRN OR 373-49-9/CRN OR 141-22-0/CRN OR 112-80-1/CRN
L71	5141	SEA FILE=REGISTRY ABB=ON	60-33-3/CRN OR 57-11-4/CRN
L72	35	SEA FILE=REGISTRY ABB=ON	L51 AND (L70 OR L71)
L73	1	SEA FILE=REGISTRY ABB=ON	L51 AND L52
L74	22	SEA FILE=HCAPLUS ABB=ON	L72 OR L73
L75	12	SEA FILE=HCAPLUS ABB=ON	L74(L) (POF OR PREP OR IMF OR SPN)/RL
L76	27	SEA FILE=HCAPLUS ABB=ON	L69 OR L75

=> D L76 ALL 1-27 HITSTR

L76 ANSWER 1 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2004:307542 HCAPLUS  
 DN 140:329578  
 ED Entered STN: 15 Apr 2004  
 TI Multicolor pressure-sensitive thermal recording material containing fatty acid monoamide  
 IN Sasaki, Takashi; Date, Takashi; Kubota, Yukio; Suzuki, Minoru  
 PA Nippon Paper Industries, Co., Ltd., Japan; Pentax Corporation  
 SO Jpn. Kokai Tokkyo Koho, 16 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM B41M005-26  
 ICS B41M005-155; B41M005-165; B41M005-28; B41M005-30  
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 2004114349	A2	20040415	JP 2002-277579	20020924
PRAI	JP 2002-277579		20020924		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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JP 2004114349	ICM	B41M005-26
	ICS	B41M005-155; B41M005-165; B41M005-28; B41M005-30
JP 2004114349	FTERM	2H026/AA07; 2H026/AA11; 2H026/BB26; 2H026/BB29; 2H026/BB33; 2H026/BB37; 2H026/DD02; 2H026/DD43; 2H026/DD53; 2H026/FF03; 2H026/FF05; 2H085/AA07; 2H085/BB26; 2H085/BB29; 2H085/BB33; 2H085/BB35; 2H085/DD02; 2H085/DD43

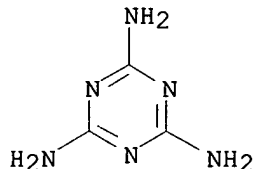
OS MARPAT 140:329578  
 AB The material has ≥1 recording layer containing (1) the colorless or pale colored electron donative dye precursor in which ≥1 dye is microencapsulated with a shell fractured by applying higher temperature and

- pressure than decided ones, (2) the electron attractive developer containing (poly)4-hydroxy benzoic acid  $H[OCO(p-C_6H_4)]_mOCO(p-C_6H_4)OH$  ( $I$  ;  $m = 0-2$ ) or a condensation reaction product of (a) a carboxylic acid component containing  $I$  and/or its derivative and (b) a polyvalent alc. component containing  $\geq 3$  valent alc.  $(HOCH_2)_2R_1CCH_2[OCH_2R_2C(CH_2OH)CH_2]_nOH$  as an essential ingredient, and (3) a saturated fatty acid monoamide  $ROCONH_2$  with average particle diameter  $\leq 1 \mu m$ . The material shows improved color discrimination and heat and humidity resistance of background.
- ST heat pressure sensitive multicolor printing material; fatty acid monoamide printing material; polyester hydroxybenzoic acid alc color developer printing; microcapsule dye precursor printing material
- IT Polyesters, preparation  
RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; **USES (Uses)**  
(color developer; multicolor pressure-sensitive thermal recording material containing fatty acid monoamide)
- IT Aminoplasts  
RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; **USES (Uses)**  
(microcapsule shell; multicolor pressure-sensitive thermal recording material containing fatty acid monoamide)
- IT Printing (impact)  
Thermal printing materials  
(multicolor pressure-sensitive thermal recording material containing fatty acid monoamide)
- IT 8063-22-7  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); **USES (Uses)**  
(G 270; multicolor pressure-sensitive thermal recording material containing fatty acid monoamide)
- IT 247038-95-5P, Hexapentaerythritol-4-hydroxybenzoic acid-terephthalic acid copolymer  
RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; **USES (Uses)**  
(color developer; multicolor pressure-sensitive thermal recording material containing fatty acid monoamide)
- IT 99-96-7, 4-Hydroxybenzoic acid, uses 104880-73-1  
RL: TEM (Technical or engineered material use); **USES (Uses)**  
(color developer; multicolor pressure-sensitive thermal recording material containing fatty acid monoamide)
- IT 9003-08-1P, Formaldehyde-melamine copolymer  
RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; **USES (Uses)**  
(microcapsule shell; multicolor pressure-sensitive thermal recording material containing fatty acid monoamide)
- IT 124-26-5, Stearic acid amide 629-54-9, Palmitic acid amide  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); **USES (Uses)**  
(multicolor pressure-sensitive thermal recording material containing fatty acid monoamide)
- IT 40677-31-4  
RL: TEM (Technical or engineered material use); **USES (Uses)**  
(multicolor pressure-sensitive thermal recording material containing fatty acid monoamide)
- IT 9003-08-1P, Formaldehyde-melamine copolymer  
RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; **USES (Uses)**  
(microcapsule shell; multicolor pressure-sensitive thermal recording

material containing **fatty acid** monoamide)  
 RN 9003-08-1 HCAPLUS  
 CN 1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde (9CI) (CA INDEX NAME)

CM 1

CRN 108-78-1  
 CMF C3 H6 N6



CM 2

CRN 50-00-0  
 CMF C H2 O

H<sub>2</sub>C=O

L76 ANSWER 2 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2004:305328 HCAPLUS  
 DN 140:329568  
 ED Entered STN: 15 Apr 2004  
 TI Thermal or pressure-sensitive printing material containing fatty acid monoamide  
 IN Sasaki, Takashi; Date, Takashi  
 PA Nippon Paper Industries, Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 12 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM B41M005-26  
 ICS B41M005-28  
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004114348	A2	20040415	JP 2002-277574	20020924
PRAI JP 2002-277574		20020924		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2004114348	ICM	B41M005-26
	ICS	B41M005-28
JP 2004114348	FTERM	2H026/AA07; 2H026/DD12; 2H026/DD34; 2H026/DD43; 2H026/DD48; 2H026/FF05

OS MARPAT 140:329568

AB The material contains (A) an electron donative leuco dye microencapsulated or forming complex fine particles with polyvalent isocyanate polymer, (B) an electron attractive developer, and (C) a saturated fatty acid monoamide R1CONH2 (R1 = C11-21 alkyl). It shows improved color development and abrasion resistance.

ST thermal printing material microencapsulated leuco dye; complex fine particle leuco dye isocyanate polymer printing; fatty acid monoamide thermal printing material

IT Aminoplasts  
 RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (microcapsule shell; thermal printing material containing fatty acid monoamide)

IT Printing (impact)  
 (pressure-sensitive printing material containing fatty acid monoamide)

IT Thermal printing materials  
 (thermal printing material containing fatty acid monoamide)

IT 8063-22-7  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (G 270; printing material containing fatty acid monoamide)

IT 51852-81-4P, Trimethylolpropane-xylylene diisocyanate copolymer  
 148130-89-6P, Takenate D 110N homopolymer  
 RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (microcapsule shell; printing material containing fatty acid monoamide)

IT **9003-08-1P, Formaldehyde-melamine copolymer**  
 RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (microcapsule shell; thermal printing material containing **fatty acid monoamide**)

IT 124-26-5, Stearic acid amide 629-54-9, Palmitic acid amide  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (printing material containing fatty acid monoamide)

IT 70516-41-5, S 205  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (printing material containing fatty acid monoamide)

IT 89331-94-2, ODB 2  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (thermal printing material containing fatty acid monoamide)

IT **9003-08-1P, Formaldehyde-melamine copolymer**  
 RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (microcapsule shell; thermal printing material containing **fatty acid monoamide**)

RN 9003-08-1 HCAPLUS

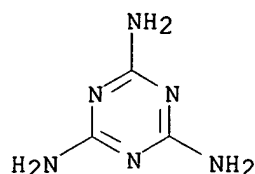
CN 1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde (9CI) (CA INDEX NAME)

CM 1

CRN 108-78-1

CMF C3 H6 N6





CM 2

CRN 50-00-0  
CMF C H2 O

H<sub>2</sub>C=O

L76 ANSWER 3 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2003:892465 HCAPLUS  
DN 139:366426  
ED Entered STN: 14 Nov 2003  
TI Adhesion promoting agent and coating compositions for polymeric substrates  
IN Kondos, Constantine A.; Martz, Jonathan T.; Nakajima, Masayuki  
PA USA  
SO U.S. Pat. Appl. Publ., 17 pp., Cont. of U.S. Ser. No. 564,174.  
CODEN: USXXCO  
DT Patent  
LA English  
IC ICM C08F008-00  
NCL 525191000  
CC 42-10 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 38

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003212209	A1	20031113	US 2003-404289	20030401
PRAI US 2000-564174	A1	20000503		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2003212209	ICM	C08F008-00
	NCL	525191000
US 2003212209	ECLA	G11B027/031; H04N007/16E3; H04N007/167D; H04N007/26Q; H04N007/30; H04N009/804B; H04N005/913

AB The present invention provides an adhesion promoting agent based on a graft copolymer formed by a halogenated polyolefin polymer with at least one reactive functionality and a substantially saturated hydrocarbon polymer having more than one reactive functionality. At least one reactive functionality of the saturated hydrocarbon polymer is reactive with the reactive functionality of the halogenated polyolefin to form the graft copolymer of the invention. A typical graft copolymer was manufactured by stirring 200 g Hardlen 13MLJ (chlorinated maleated polyolefin) with 120 g Polytail H (hydrogenated polybutadienediol) 6 h at 120°.

ST plastic substrate coating halogenated polyolefin adduct; chlorinated maleated polyolefin hydrogenated polybutadienediol adduct coating plastic substrate

- IT Alkyd resins  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(acrylic, thermosetting binder; grafted products of reactive hydrocarbon polymers and halogenated polyolefins for adhesion-promoting binders for coatings for plastics)
- IT Polyolefins  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(chlorinated, maleated, reaction products, with hydrogenated polybutadienediols; grafted products of reactive hydrocarbon polymers and halogenated polyolefins for adhesion-promoting binders for coatings for plastics)
- IT Epoxy resins, uses  
Polyesters, uses  
Polyurethanes, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(curable binder; grafted products of reactive hydrocarbon polymers and halogenated polyolefins for adhesion-promoting binders for coatings for plastics)
- IT Adhesion promoters  
(grafted products of reactive hydrocarbon polymers and halogenated polyolefins for adhesion-promoting binders for coatings for plastics)
- IT Styrene-butadiene rubber, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(hydrogenated, block, diblock, Kraton G1726X, addnl. binder; grafted products of reactive hydrocarbon polymers and halogenated polyolefins for adhesion-promoting binders for coatings for plastics)
- IT Polyolefins  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(maleated, chlorinated, reaction products, with hydrogenated polybutadienediols; grafted products of reactive hydrocarbon polymers and halogenated polyolefins for adhesion-promoting binders for coatings for plastics)
- IT Plastics, miscellaneous  
RL: MSC (Miscellaneous)  
(substrate; grafted products of reactive hydrocarbon polymers and halogenated polyolefins for adhesion-promoting binders for coatings for plastics)
- IT Polyolefins  
RL: MSC (Miscellaneous)  
(thermoplastic, substrate; grafted products of reactive hydrocarbon polymers and halogenated polyolefins for adhesion-promoting binders for coatings for plastics)
- IT Coating materials  
(thermosetting; grafted products of reactive hydrocarbon polymers and halogenated polyolefins for adhesion-promoting binders for coatings for plastics)
- IT 68855-15-2P, Pentaerythritol-phthalic anhydride copolymer ester with Emersol 315 and crotonic acid  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(binder precursor; grafted products of reactive hydrocarbon polymers and halogenated polyolefins for adhesion-promoting binders for coatings for plastics)
- IT 620626-01-9P

RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)  
(curable binder precursor; grafted products of reactive hydrocarbon polymers and halogenated polyolefins for adhesion-promoting binders for coatings for plastics)

IT 620626-02-0P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(cured binder; grafted products of reactive hydrocarbon polymers and halogenated polyolefins for adhesion-promoting binders for coatings for plastics)

IT 108-31-6DP, Maleic anhydride, reaction products with chlorinated polyolefins and hydrogenated polybutadienediols 9003-17-2DP, Polybutadiene, diols, hydrogenated, reaction products with chlorinated maleated polyolefins 87913-10-8DP, Polytail H, reaction products with chlorinated maleated polyolefins 88507-04-4DP, Polytail HA, reaction products with chlorinated maleated polyolefins 217818-36-5DP, Hardlen CY9122P, reaction products with hydrogenated polybutadienediols 620963-25-9DP, Hardlen 13MLJ, reaction products with hydrogenated polybutadienediols

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(grafted products of reactive hydrocarbon polymers and halogenated polyolefins for adhesion-promoting binders for coatings for plastics)

IT 9003-55-8

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(styrene-butadiene rubber, hydrogenated, block, diblock, Kraton G1726X, addnl. binder; grafted products of reactive hydrocarbon polymers and halogenated polyolefins for adhesion-promoting binders for coatings for plastics)

IT 201687-78-7, ETA 3183 221680-44-0, Dexflex 777 459124-89-1, Sequel 1440 620963-29-3, D 161B 620963-30-6, Dexflex 727 620963-31-7, CA 287 620963-44-2, Amtuff 3110

RL: MSC (Miscellaneous)  
(substrate; grafted products of reactive hydrocarbon polymers and halogenated polyolefins for adhesion-promoting binders for coatings for plastics)

IT 620626-02-0P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(cured binder; grafted products of reactive hydrocarbon polymers and halogenated polyolefins for adhesion-promoting binders for coatings for plastics)

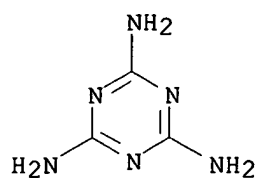
RN 620626-02-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 2,2-bis(hydroxymethyl)-1,3-propanediol polymer with 1,3-isobenzofurandione 2-butenate (9Z,12Z)-9,12-octadecadienoate, 2-ethylhexyl 2-propenoate, formaldehyde, 2-propenenitrile and 1,3,5-triazine-2,4,6-triamine (9CI)  
(CA INDEX NAME)

CM 1

CRN 108-78-1

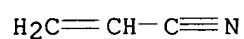
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CRN 107-13-1

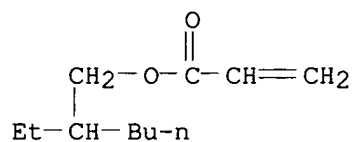
CMF C3 H3 N



CM 3

CRN 103-11-7

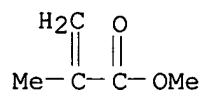
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CM 4

CRN 80-62-6

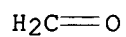
CMF C5 H8 O2



CM 5

CRN 50-00-0

CMF C H2 O



CM 6

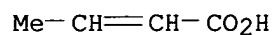
CRN 68855-15-2

CMF C18 H32 O2 . x (C8 H4 O3 . C5 H12 O4)x . x C4 H6 O2

CM 7

CRN 3724-65-0

CMF C4 H6 O2

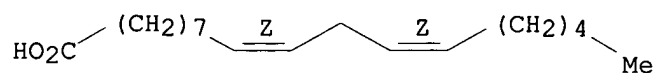


CM 8

CRN 60-33-3

CMF C18 H32 O2

Double bond geometry as shown.



CM 9

CRN 26659-15-4

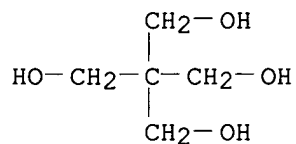
CMF (C8 H4 O3 . C5 H12 O4)x

CCI PMS

CM 10

CRN 115-77-5

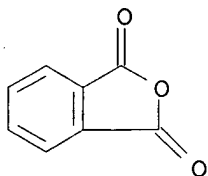
CMF C5 H12 O4



CM 11

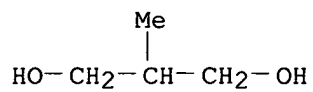
CRN 85-44-9

CMF C8 H4 O3



L76 ANSWER 4 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2003:851431 HCAPLUS  
 DN 140:425001  
 ED Entered STN: 31 Oct 2003  
 TI Development of self-catalysis low-temperature-curable quick-drying amino  
 paints  
 AU Wang, Xiaomu  
 CS Northwest Yongxin Chemical Industry Co., Ltd., Lanzhou, 730020, Peop. Rep.  
 China  
 SO Xiandai Tuliao Yu Tuzhuang (2003), (5), 1-2  
 CODEN: XTYTAL; ISSN: 1007-9548  
 PB Xiandai Tuliao Yu Tuzhuang Bianjibu  
 DT Journal  
 LA Chinese  
 CC 42-8 (Coatings, Inks, and Related Products)  
 AB An enamel contained an alkyd resin 48-65, an amino resin iso-Bu ether  
 18-24, TiO<sub>2</sub> 20-22, a dispersant 0.5-1, solvents 1-3%, and a trace of  
 viscosity stabilizer. An alkyd resin was prepared from oleic acid 14-18,  
 phthalic anhydride 18-22, benzoic acid 1-3, trimellitic anhydride 1-2,  
 2-methyl-1,3-propylene glycol 4-8, trimethylolpropane 8-14, xylene 2-4, an  
 antioxidant 0.004, and solvents 44-47%.  
 ST alkyd amino resin enamel  
 IT Enamels (paints)  
 (alkyd resins and amino resins for self-catalysis low-temperature-curable  
 quick-drying enamels)  
 IT Alkyd resins  
 Aminoplasts  
 RL: POF (Polymer in formulation); SPN (Synthetic preparation); TEM  
 (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (alkyd resins and amino resins for self-catalysis low-temperature-curable  
 quick-drying enamels)  
 IT **691004-83-8P**  
 RL: POF (Polymer in formulation); PRP (Properties); SPN  
 (Synthetic preparation); TEM (Technical or engineered material use);  
 PREP (Preparation); USES (Uses)  
 (alkyd resins and amino resins for self-catalysis low-temperature-curable  
 quick-drying enamels)  
 IT 691004-82-7P, 2-Methyl-1,3-propylene glycol-oleic acid-phthalic  
 anhydride-trimellitic anhydride-trimethylolpropane copolymer  
 RL: POF (Polymer in formulation); SPN (Synthetic preparation); TEM  
 (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (alkyd resins and amino resins for self-catalysis low-temperature-curable  
 quick-drying enamels)  
 IT **691004-83-8P**  
 RL: POF (Polymer in formulation); PRP (Properties); SPN  
 (Synthetic preparation); TEM (Technical or engineered material use);  
 PREP (Preparation); USES (Uses)  
 (alkyd resins and amino resins for self-catalysis low-temperature-curable  
 quick-drying enamels)  
 RN 691004-83-8 HCAPLUS  
 CN 5-Isobenzofurancarboxylic acid, 1,3-dihydro-1,3-dioxo-, polymer with  
 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, formaldehyde,  
 1,3-isobenzofurandione, 2-methyl-1,3-propanediol, (9Z)-9-octadecenoic acid  
 and 1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 2163-42-0

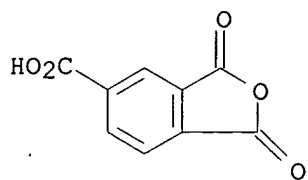
CMF C4 H10 O2



CM 2

CRN 552-30-7

CMF C9 H4 O5

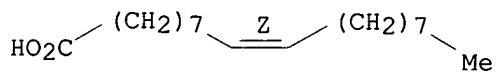


CM 3

CRN 112-80-1

CMF C18 H34 O2

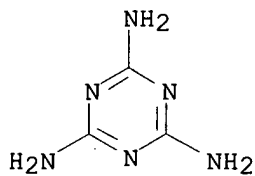
Double bond geometry as shown.



CM 4

CRN 108-78-1

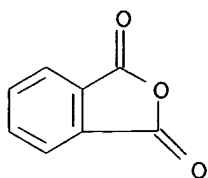
CMF C3 H6 N6



CM 5

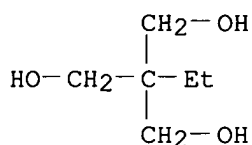
CRN 85-44-9

CMF C8 H4 O3



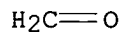
CM 6

CRN 77-99-6  
CMF C6 H14 O3



CM 7

CRN 50-00-0  
CMF C H2 O



L76 ANSWER 5 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:126241 HCAPLUS

DN 136:185435

ED Entered STN: 19 Feb 2002

TI Process for coating of ferromagnetic articles

IN Yono, Masayoshi; Watanabe, Mikio

PA Shin-Etsu Chemical Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B05D001-02

ICS B05D007-14; B05D007-24; C23F011-00; F16B033-06

CC 42-2 (Coatings, Inks, and Related Products)

Section cross-reference(s): 77

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002052362	A2	20020219	JP 2000-243158	20000810
PRAI	JP 2000-243158		20000810		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2002052362	ICM	B05D001-02
	ICS	B05D007-14; B05D007-24; C23F011-00; F16B033-06



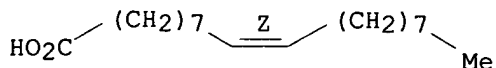
- AB Ferromagnetic articles especially having screw portions are coated uniformly by spraying coatings while the articles are fixed and rotated by a magnet. Thus, p-aminophenol was treated with HCl to give a condensate, which was further treated with Li stearate to give a product. A composition containing
- the product 12.4, Epokey 863 (liquid epoxy resin solution) 100, U-Van 22R (butylated melamine resin) 50, and poly(vinyl butyral) 10 parts was sprayed on a rotating bolt to form a coating showing good corrosion resistance and no peeling or defects by screwing it into and out from a nut.
- ST anticorrosive polyaminophenol coating spraying ferromagnetic article; bolt coating spray aminophenol polymer
- IT Coating materials  
(anticorrosive; spray coating of ferromagnetic articles having screw portions)
- IT Polyamines  
RL: **IMF (Industrial manufacture)**; PEP (Physical, engineering or chemical process); **POF (Polymer in formulation)**; PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); **PREP (Preparation)**; PROC (Process); USES (Uses)  
(aromatic; spray coating of ferromagnetic articles having screw portions)
- IT Bolts  
Ferromagnetic materials  
(spray coating of ferromagnetic articles having screw portions)
- IT Epoxy resins, uses  
Polyvinyl butyrals  
RL: PEP (Physical, engineering or chemical process); **POF (Polymer in formulation)**; PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(spray coating of ferromagnetic articles having screw portions)
- IT Coating process  
(spray; spray coating of ferromagnetic articles having screw portions)
- IT 100-44-7DP, Benzyl chloride, reaction products with aromatic amine condensates **112-80-1DP**, Oleic acid, reaction products with aniline-nitrobenzene **copolymer** 4485-12-5DP, Lithium stearate, reaction products with aromatic amine polymers 25668-00-2DP, p-Aminophenol homopolymer, reaction products with lithium stearate 25668-00-2P, p-Aminophenol homopolymer 32036-19-4DP, Poly(imino-1,4-phenylene), reaction products with lithium stearate 32036-19-4P, Poly(imino-1,4-phenylene) 51774-88-0P, m-Phenylenediamine-resorcinol copolymer 63519-68-6P, Poly(imino-1,3-phenylene) 186376-45-4P, p-Benzoquinone-1,8-diaminonaphthalene-pyrogallol copolymer 333788-70-8DP, Aniline-nitrobenzene copolymer, reaction products with oleic acid 333788-70-8P, Aniline-nitrobenzene copolymer  
RL: **IMF (Industrial manufacture)**; PEP (Physical, engineering or chemical process); **POF (Polymer in formulation)**; PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); **PREP (Preparation)**; PROC (Process); USES (Uses)  
(spray coating of ferromagnetic articles having screw portions)
- IT **398488-46-5**, Epokey 863-U-Van 22R **copolymer**  
RL: PEP (Physical, engineering or chemical process); **POF (Polymer in formulation)**; PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(spray coating of ferromagnetic articles having screw portions)
- IT **112-80-1DP**, Oleic acid, reaction products with aniline-nitrobenzene **copolymer**  
RL: **IMF (Industrial manufacture)**; PEP (Physical, engineering or chemical process); **POF (Polymer in formulation)**; PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(spray coating of ferromagnetic articles having screw portions)

material use); **PREP (Preparation)**; PROC (Process); USES (Uses)  
(spray coating of ferromagnetic articles having screw portions)

RN 112-80-1 HCAPLUS

CN 9-Octadecenoic acid (9Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IT **398488-46-5**, Epokey 863-U-Van 22R **copolymer**

RL: PEP (Physical, engineering or chemical process); **POF (Polymer in formulation)**; PRP (Properties); PYP (Physical process); TEM  
(Technical or engineered material use); PROC (Process); USES (Uses)  
(spray coating of ferromagnetic articles having screw portions)

RN 398488-46-5 HCAPLUS

CN Formaldehyde, polymer with Epokey 863 and 1,3,5-triazine-2,4,6-triamine  
(9CI) (CA INDEX NAME)

CM 1

CRN 211058-94-5

CMF Unspecified

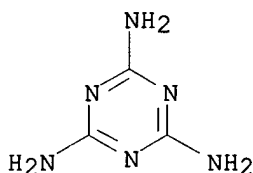
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

CRN 108-78-1

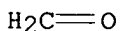
CMF C3 H6 N6



CM 3

CRN 50-00-0

CMF C H2 O



L76 ANSWER 6 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:816802 HCAPLUS

DN 135:359218

ED Entered STN: 09 Nov 2001

TI Adhesion promoting agent and coating compositions for polymeric substrates

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

IN Kondos, Constantine A.; Martz, Jonathan T.; Nakajima, Masayuki  
 PA PPG Industries Ohio, Inc., USA  
 SO PCT Int. Appl., 53 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM C09J  
 CC 42-10 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001083628	A2	20011108	WO 2001-US10940	20010404
	WO 2001083628	A3	20020627		
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
	CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,				
	HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,				
	LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,				
	SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU,				
	ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,				
	DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,				
	BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 6593423	B1	20030715	US 2000-564175	20000503
	AU 2001051297	A5	20011112	AU 2001-51297	20010404
PRAI	US 2000-564175	A	20000503		
	WO 2001-US10940	W	20010404		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	WO 2001083628	ICM	C09J
	US 6593423	ECLA	C08J007/04L51; C09D123/28; C09D151/06
AB	The present invention provides an adhesion promoting agent which includes a graft copolymer formed by a halogenated polyolefin polymer with at least one reactive functionality and a substantially saturated hydrocarbon polymer having more than one reactive functionality. At least one reactive functionality of the saturated hydrocarbon polymer is reactive with the reactive functionality of the halogenated polyolefin to form the graft copolymer of the invention.		
ST	adhesion promotor coating compn polymer substrate; polyolefin halogenated hydrocarbon graft polymer adhesion promotor		
IT	Adhesion promoters		
	Coating materials		
	Crosslinking agents		
	(adhesion promoting agent and coating compns. for polymeric substrates)		
IT	Acrylic polymers, uses		
	Aminoplasts		
	Polyesters, uses		
	Polyurethanes, uses		
	RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)		
	(adhesion promoting agent and coating compns. for polymeric substrates)		
IT	Epoxides		
	Polyolefins		
	RL: TEM (Technical or engineered material use); USES (Uses)		
	(adhesion promoting agent and coating compns. for polymeric substrates)		
IT	Polymers, uses		
	RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)		

(graft; adhesion promoting agent and coating compns. for polymeric substrates)

IT Polyolefins  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (halogenated; adhesion promoting agent and coating compns. for polymeric substrates)

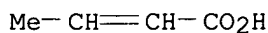
IT 371968-38-6P, Hardlen MLJ 13-Polytail H graft copolymer 371968-39-7P, Hardlen MLJ 13-Polytail HA graft copolymer **371968-40-0P**, acrylonitrile-2-ethylhexyl acrylate-crotonic acid-Emersol 315-Pentaerythritol-phthalic anhydride-methyl methacrylate-Resimene 717-styrene copolymer 372150-82-8P, Hardlen CY 9122P-Polytail H graft copolymer 372150-83-9P, eponex 1510-Hardlen CY 9122P-Polytail H graft copolymer  
 RL: **IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)** (adhesion promoting agent and coating compns. for polymeric substrates)

IT **371968-40-0P**, acrylonitrile-2-ethylhexyl acrylate-crotonic acid-Emersol 315-Pentaerythritol-phthalic anhydride-methyl methacrylate-Resimene 717-styrene copolymer  
 RL: **IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)** (adhesion promoting agent and coating compns. for polymeric substrates)

RN 371968-40-0 HCAPLUS  
 CN 9,12-Octadecadienoic acid (9Z,12Z)-, polymer with 2,2-bis(hydroxymethyl)-1,3-propanediol, 2-butenic acid, ethenylbenzene, 2-ethylhexyl 2-propenoate, formaldehyde, 1,3-isobenzofurandione, methyl 2-methyl-2-propenoate, 2-propenenitrile and 1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)

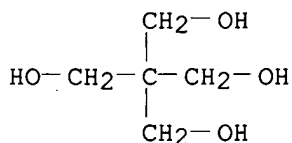
CM 1

CRN 3724-65-0  
 CMF C4 H6 O2



CM 2

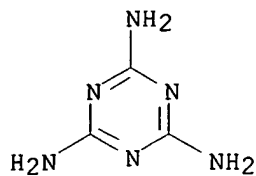
CRN 115-77-5  
 CMF C5 H12 O4



CM 3

CRN 108-78-1

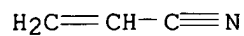
CMF C3 H6 N6



CM 4

CRN 107-13-1

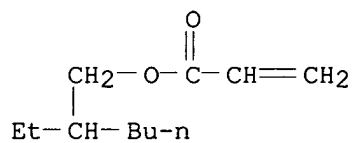
CMF C3 H3 N



CM 5

CRN 103-11-7

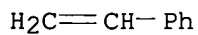
CMF C11 H20 O2



CM 6

CRN 100-42-5

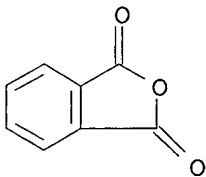
CMF C8 H8



CM 7

CRN 85-44-9

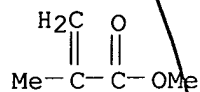
CMF C8 H4 O3



CM 8

CRN 80-62-6

CMF C5 H8 O2

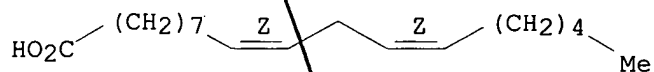


CM 9

CRN 60-33-3

CMF C18 H32 O2

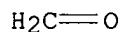
Double bond geometry as shown.



CM 10

CRN 50-00-0

CMF C H2 O



L76 ANSWER 7 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:224477 HCAPLUS

DN 134:223470

ED Entered STN: 30 Mar 2001

TI Epoxy resins exhibiting higher tenacity after hardening and their manufacture

IN Lunak, Stanislav; Dobas, Ivan; Sima, Milan

PA Synpo A. S., Czech Rep.

SO Czech Rep., 5 pp.

CODEN: CZXXED

DT Patent

LA Czech

IC ICM C08G059-16

CC 37-6 (Plastics Manufacture and Processing)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI CZ 285979	B6	19991215	CZ 1989-1836	19890324
PRAI CS 1989-1836	A	19890324		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES

CZ 285979 ICM C08G059-16

- AB The title resins, useful for coatings, sealants, adhesives, prepregs, laminates and molded articles, comprise 10-90% products obtained by reacting epoxy resins with polymerized fatty acids from unsatd. vegetable oils. The reaction is carried out in 2 steps where, in the 1st step, 10-90% of the total amount of the resin reacts with polymerized fatty acids to obtain an intermediate product with acid number <10 mg KOH/g and, in the 2nd step, the remaining epoxy resin is added and the reaction completed. A typical title resin, curable with diaminodiphenylmethane, was prepared by heating 100 parts bisphenol A-based epoxy resin (0.4 epoxy equiv/100 g) with 20 parts polymerized rape oil fatty acids (90% dimers, 8% monomers, 2% tri- and higher oligomers) for 2 h at 150° in the presence of 0.1% benzyl(lauryl)trimethylammonium bromide.
- ST epoxy resin manuf fatty acid oligomer deriv high tenacity; fatty acid unsatd dimer epoxy resin deriv high tenacity
- IT Fatty acids, preparation  
 RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (castor-oil, polymerized, reaction products with epoxy resins, crosslinked; manufacture of epoxy resins with higher tenacity after hardening)
- IT Fatty acids, preparation  
 RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (dimer acids, reaction products, with epoxy resins, crosslinked; manufacture of epoxy resins with higher tenacity after hardening)
- IT Fatty acids, preparation  
 RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (linseed-oil, polymerized, reaction products with epoxy resins, crosslinked; manufacture of epoxy resins with higher tenacity after hardening)
- IT Fatty acids, preparation  
 RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (rape-oil, polymerized, reaction products with epoxy resins, crosslinked; manufacture of epoxy resins with higher tenacity after hardening)
- IT Aminoplasts  
 RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (reaction products with epoxy resin adducts with polymerized unsatd. fatty acids, crosslinked; manufacture of epoxy resins with higher tenacity after hardening)
- IT Epoxy resins, preparation  
 RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (reaction products, with polymerized unsatd. fatty acids, crosslinked; manufacture of epoxy resins with higher tenacity after hardening)
- IT Fatty acids, preparation  
 RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (soya, polymerized, reaction products with epoxy resins, crosslinked; manufacture of epoxy resins with higher tenacity after hardening)
- IT Fatty acids, preparation  
 RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (sunflower-oil, polymerized, reaction products with epoxy resins, crosslinked; manufacture of epoxy resins with higher tenacity after hardening)
- IT Fatty acids, preparation

RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)

(unsatd., dimers, polymers, with epoxy resins, crosslinked; manufacture of epoxy resins with higher tenacity after hardening)

IT **9003-08-1DP**, Formaldehyde-Melamine **copolymer**, reaction products with epoxy resin adducts with polymerized unsatd. **fatty acids** 25068-38-6DP, Bisphenol A-Epichlorohydrin copolymer, reaction products with polymerized unsatd. fatty acids and diaminodiphenylmethane 32144-31-3DP, Diglycidylaniline, polymers, reaction products with polymerized unsatd. fatty acids and hexahydrophthalic anhydride 58421-55-9DP, Bisphenol F-epichlorohydrin copolymer, reaction products with polymerized unsatd. fatty acids and melamine resin

RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)

(crosslinked; manufacture of epoxy resins with higher tenacity after hardening)

IT **9003-08-1DP**, Formaldehyde-Melamine **copolymer**, reaction products with epoxy resin adducts with polymerized unsatd. **fatty acids**

RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)

(crosslinked; manufacture of epoxy resins with higher tenacity after hardening)

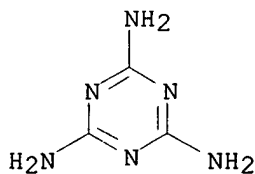
RN 9003-08-1 HCAPLUS

CN 1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde (9CI) (CA INDEX NAME)

CM 1

CRN 108-78-1

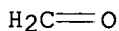
CMF C3 H6 N6



CM 2

CRN 50-00-0

CMF C H2 O



L76 ANSWER 8 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:137644 HCAPLUS

DN 134:326846

ED Entered STN: 25 Feb 2001

TI Hyperbranched poly(ether ketone) analogues with heterocyclic triazine moiety: synthesis and peripheral functionalization

AU Cho, Song Yun; Chang, Youngkyu; Kim, Jin Seok; Lee, Sang Cheon; Kim,



- Chulhee
- CS Department of Polymer Science and Engineering, Hyperstructured Organic Materials Research Center, Inha University, Incheon, 402-751, S. Korea
- SO Macromolecular Chemistry and Physics (2001), 202(2), 263-269  
CODEN: MCHPES; ISSN: 1022-1352
- PB Wiley-VCH Verlag GmbH
- DT Journal
- LA English
- CC 35-5 (Chemistry of Synthetic High Polymers)
- AB Hyperbranched poly(ether ketone) with 1,3,5-s-triazine moiety was prepared by a one-pot polymerization of an AB2 type monomer, 2,4-bis(4-hydroxyphenyl)-6-(4-(4-(4-fluorobenzoyl)phenoxy)phenyl)-1,3,5-s-triazine, which was synthesized from cyanuric chloride. The selective reactivity of three chlorine atoms on cyanuric chloride toward nucleophiles provides a very efficient route for the systematic synthesis of AB2 type triazine monomers and their hyperbranched polymers. The resulting polymers exhibited a glass transition at 264° without any indication of crystallinity. The modification of the peripheral hydroxyl groups on the hyperbranched polymers by methoxy, oligo oxyethylene, or stearyl moieties brought about remarkable changes in their solubility and glass transition temps. The amphiphilic nature of the 2-[2-(2-(2-methoxyethoxy)ethoxy)ethoxy]ethoxy-terminated poly(ether ketone) analog in an aqueous phase was investigated by using fluorescence techniques and dynamic light scattering. It was found that the analog forms a self-aggregation at a critical aggregation concentration of 12.6 mg/L. The mean diameter of the aggregates was 320 nm. The steady-state fluorescence anisotropy value (r) of 1,6-diphenyl-1,3,5-hexatriene (DPH) in the hydrophobic domain was 0.240.
- ST hyperbranched polyether polyketone deriv contg triazine prepn;  
fluorescence aggregation glass transition dendrimer polyether polyketone
- IT Polyketones  
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(polyether-; preparation and characterization of hyperbranched poly(ether ketone) analogs with heterocyclic triazine moiety)
- IT Polyethers, preparation  
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(polyketone-; preparation and characterization of hyperbranched poly(ether ketone) analogs with heterocyclic triazine moiety)
- IT Fluorescence  
Glass transition temperature  
Molecular association  
(preparation and characterization of hyperbranched poly(ether ketone) analogs with heterocyclic triazine moiety)
- IT Dendritic polymers  
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and characterization of hyperbranched poly(ether ketone) analogs with heterocyclic triazine moiety)
- IT 108-77-0, Cyanuric chloride 111-77-3, Diethylene glycol monomethyl ether 403-43-0, 4-Fluorobenzoyl chloride 9004-74-4, Polyethylene glycol monomethyl ether 13139-86-1, 4-Methoxyphenyl magnesium bromide 21473-02-9, 4-Phenoxyphenylmagnesium bromide  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(in preparation of hyperbranched poly(ether ketone) analogs with heterocyclic triazine moiety)
- IT 318481-72-0P, 2,4-Dichloro-6-(4-phenoxyphenyl)-1,3,5-s-triazine

319491-73-1P, 2,4-Bis(4-methoxyphenyl)-6-(4-phenoxyphenyl)-1,3,5-s-triazine 336611-79-1P 336611-80-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(in preparation of hyperbranched poly(ether ketone) analogs with heterocyclic triazine moiety)

IT 336627-21-5P 336627-22-6P 336627-23-7P 336627-24-8P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(preparation and peripheral functionalization of hyperbranched poly(ether ketone) analogs with heterocyclic triazine moiety)

IT 336611-81-5P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of hyperbranched poly(ether ketone) analogs with heterocyclic triazine moiety)

RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD

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IT 336627-24-8P

RL: PRP (Properties); SPN (Synthetic preparation); PREP

**(Preparation)**

(preparation and peripheral functionalization of hyperbranched poly(ether ketone) analogs with heterocyclic triazine moiety)

RN 336627-24-8 HCAPLUS

CN Methanone, [4-[4-[4,6-bis(4-hydroxyphenyl)-1,3,5-triazin-2-yl]phenoxy]phenyl](4-fluorophenyl)-, homopolymer, octadecanoate (ester) (9CI) (CA INDEX NAME)

CM 1

CRN 57-11-4

CMF C18 H36 O2

2

,

HO<sub>2</sub>C-(CH<sub>2</sub>)<sub>16</sub>-Me

CM 2

CRN 336611-81-5

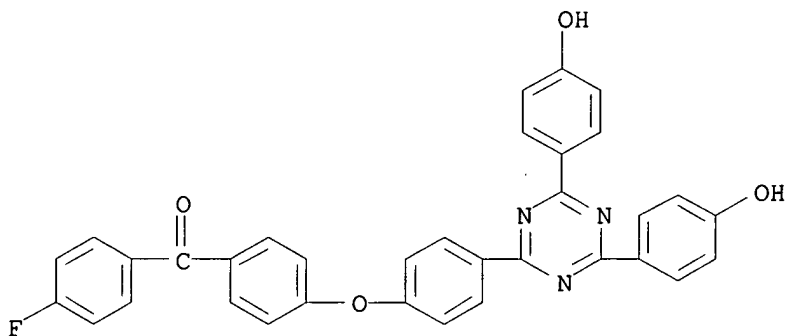
CMF (C34 H22 F N3 O4)x

CCI PMS

CM 3

CRN 336611-80-4

CMF C34 H22 F N3 O4



L76 ANSWER 9 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:19402 HCAPLUS

DN 132:65420

ED Entered STN: 10 Jan 2000

TI Viscosity control agents for aqueous dispersions

IN Nakamura, Hiroshi; Date, Kazuyuki

PA Toyota Central Research and Development Laboratories, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09K003-00

ICS C09D201-00

CC 42-5 (Coatings, Inks, and Related Products)

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000001662	A2	20000107	JP 1998-167437	19980615
PRAI	JP 1998-167437		19980615		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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JP 2000001662	ICM	C09K003-00
	ICS	C09D201-00

AB Viscosity control agents having hydrophobic and hydrophilic portions, useful for water-thinned coatings, are prepared by hydrophobization of hydrophilic polymers and/or hydrophilization of hydrophobic polymers. Thus, acrylic acid 96, 2-hydroxyethyl acrylate 173, and Me acrylate 116 parts were polymerized in ethylene glycol mono-Me ether in the presence of AIBN to a polymer, 100 parts of which was treated with 15 parts stearoyl chloride in DMF in the presence of Et3N to give a hydrophobized polymer (I). A 25% aqueous dispersion of dimethylethanolamine-neutralized I showed pseudoplastic flow.

ST hydrophobized acrylic resin viscosity controller; water thinned coating viscosity controller

IT Polyoxyalkylenes, uses  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses)  
(acrylic, graft; amphiphilic viscosity control agents for aqueous dispersions)

IT Amphiphiles  
(amphiphilic viscosity control agents for aqueous dispersions)

IT Viscosity  
(control agent; amphiphilic viscosity control agents for aqueous dispersions)

IT Coating materials  
(dispersion, water-thinned; amphiphilic viscosity control agents for aqueous dispersions)

IT 124-30-1DP, Stearylamine, reaction products with acrylic acid-hydroxyethyl acrylate-Me acrylate copolymer 61386-05-8DP, Acrylic acid-2-hydroxyethyl acrylate-methyl acrylate copolymer, reaction products with stearylamine 253328-31-3P, Acryloyl chloride-butyl methacrylate-methyl methacrylate-polyethylene glycol graft copolymer 253328-32-4P, Acryloyl chloride-butyl methacrylate-methyl methacrylate-oxirane graft copolymer 253328-87-9P, Acrylic acid-2-hydroxyethyl acrylate-methyl acrylate copolymer stearate 253328-88-0P, Acrylic acid-2-hydroxyethyl acrylate-methyl acrylate copolymer ester with 1,2-epoxyoctadecane  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses)  
(amphiphilic viscosity control agents for aqueous dispersions)

IT 253328-34-6P, Acryloyl chloride-butyl methacrylate-Cymel 303-methyl methacrylate-polyethylene glycol copolymer dimethylethanolamine salt **253328-90-4P**, Acrylic acid-2-hydroxyethyl acrylate-methyl acrylate copolymer stearate, polymer with Cymel 303, dimethylethanolamine salt 253328-92-6P, Acrylic acid-2-hydroxyethyl acrylate-methyl acrylate copolymer ester with 1,2-epoxyoctadecane, polymer with Cymel 303, dimethylethanolamine salt  
RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
(coating; amphiphilic viscosity control agents for aqueous dispersions)

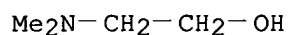
IT **253328-90-4P**, Acrylic acid-2-hydroxyethyl acrylate-methyl acrylate copolymer stearate, polymer with Cymel 303, dimethylethanolamine salt

RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM  
(Technical or engineered material use); **PREP (Preparation)**; USES  
(Uses)  
(coating; amphiphilic viscosity control agents for aqueous dispersions)

RN 253328-90-4 HCAPLUS  
CN 2-Propenoic acid, polymer with 2-hydroxyethyl 2-propenoate and methyl  
2-propenoate, octadecanoate, polymer with formaldehyde and  
1,3,5-triazine-2,4,6-triamine, compd. with 2-(dimethylamino)ethanol (9CI)  
(CA INDEX NAME)

CM 1

CRN 108-01-0  
CMF C4 H11 N O

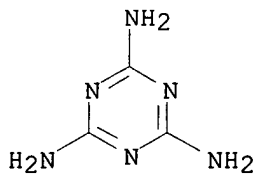


CM 2

CRN 253328-89-1  
CMF (C18 H36 O2 . x (C5 H8 O3 . C4 H6 O2 . C3 H4 O2)x . C3 H6 N6 . C H2  
O)x  
CCI PMS

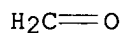
CM 3

CRN 108-78-1  
CMF C3 H6 N6



CM 4

CRN 50-00-0  
CMF C H2 O

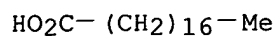


CM 5

CRN 253328-87-9  
CMF C18 H36 O2 . x (C5 H8 O3 . C4 H6 O2 . C3 H4 O2)x

CM 6

CRN 57-11-4  
CMF C18 H36 O2

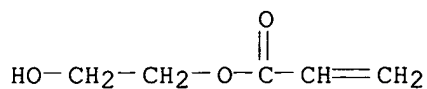


CM 7

CRN 61386-05-8  
CMF (C5 H8 O3 . C4 H6 O2 . C3 H4 O2)x  
CCI PMS

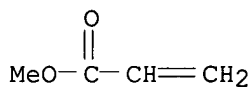
CM 8

CRN 818-61-1  
CMF C5 H8 O3



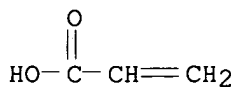
CM 9

CRN 96-33-3  
CMF C4 H6 O2



CM 10

CRN 79-10-7  
CMF C3 H4 O2



L76 ANSWER 10 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1999:407763 HCAPLUS  
DN 131:33029  
ED Entered STN: 02 Jul 1999  
TI Crosslinkable copolymers of vinyl silane and vinyl esters of branched  
fatty acid for coating compositions  
IN Huybrechts, Josef Theresu  
PA E. I. Du Pont de Nemours & Co., USA  
SO Can. Pat. Appl., 22 pp.

CODEN: CPXXEB

DT Patent  
 LA English  
 IC ICM C08F230-08  
 ICS C09D004-00; C08F218-10  
 CC 42-10 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 37

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CA 2230166	AA	19980825	CA 1998-2230166	19980223
	US 5886125	A	19990323	US 1997-805546	19970225
PRAI	US 1997-805546		19970225		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
CA 2230166	ICM	C08F230-08
	ICS	C09D004-00; C08F218-10

AB Composition comprises a copolymer having weight average mol. weight <40,000,  
 OH value

20-160 and acid value <20 and derived from (A) 5-95 parts vinyl silane CH<sub>2</sub>:CHSi(R<sub>1</sub>)R<sub>2</sub>-m(R<sub>1</sub> = aryl, C<sub>1</sub>-10 alkyl; R<sub>2</sub> = hydrolyzable group), (B) 5-95 parts vinyl ester of a branched fatty acid CH<sub>2</sub>:CHOCOC(R<sub>3</sub>)(R<sub>4</sub>)R<sub>5</sub> (R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub> = H or C<sub>1</sub>-12 alkyl group, wherein the total of R<sub>3</sub>, R<sub>4</sub> and R<sub>5</sub> contain ≥3 C), and (C) 0-90 parts olefinically unsatd. compound The compns. have good balance of solvent and chemical resistance, hardness, flexibility and adherence to a variety of substrates, and particularly, are useful in automotive top coating compns. Thus, 55.72 parts VeoVa 9 (Neononanoic acid, ethenyl ester) was reacted with Silquest A 171 (vinyltrimethoxysilane) 15.92 and 2-hydroxyethyl methacrylate 7.96 in Solvesso 100 and n-butanol to give a resin having solids 80.3%, acid value 3.6 mgKOH/g. Mn 3000 and Mw 24,300.

ST vinyl silane copolymer curable coating automotive; fatty acid branched vinyl ester copolymer; polysiloxane polyester curable coating

IT Polysiloxanes, uses  
 Polysiloxanes, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(aminoplast-, polyester-, crosslinkable copolymers of vinyl silane and vinyl esters of branched fatty acid for coating of)

IT Polyesters, uses  
 Polyesters, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(aminoplast-, siloxanes; crosslinkable copolymers of vinyl silane and vinyl esters of branched fatty acid for coating of)

IT Coating materials  
 (crosslinkable copolymers of vinyl silane and vinyl esters of branched fatty acid for coating compns.)

IT Automobiles  
 Crosslinking agents  
 (crosslinkable copolymers of vinyl silane and vinyl esters of branched fatty acid for coating of)

IT Aminoplasts  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (crosslinking agents; crosslinkable copolymers of vinyl silane and vinyl esters of branched fatty acid for coating compns.)

IT Polysiloxanes, uses  
 Polysiloxanes, uses  
 Polysiloxanes, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (epoxy-polyester-; crosslinkable copolymers of vinyl silane and vinyl esters of branched fatty acid for coating compns.)

IT Polyesters, uses  
 Polyesters, uses  
 Polyesters, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (epoxy-siloxane-; crosslinkable copolymers of vinyl silane and vinyl esters of branched fatty acid for coating compns.)

IT Aminoplasts  
 Aminoplasts  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyester-, siloxanes; crosslinkable copolymers of vinyl silane and vinyl esters of branched fatty acid for coating of)

IT Polysiloxanes, uses  
 Polysiloxanes, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyester-; crosslinkable copolymers of vinyl silane and vinyl esters of branched fatty acid for coating compns.)

IT Polyurethanes, uses  
 Polyurethanes, uses  
 Polyurethanes, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyester-polysiloxane-; crosslinkable copolymers of vinyl silane and vinyl esters of branched fatty acid for coating of)

IT Polysiloxanes, uses  
 Polysiloxanes, uses  
 Polysiloxanes, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyester-polyurethane-; crosslinkable copolymers of vinyl silane and vinyl esters of branched fatty acid for coating of)

IT Epoxy resins, uses  
 Epoxy resins, uses  
 Epoxy resins, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyester-siloxane-; crosslinkable copolymers of vinyl silane and vinyl esters of branched fatty acid for coating compns.)

IT Polyesters, uses  
 Polyesters, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)



(polysiloxane-; crosslinkable copolymers of vinyl silane and vinyl esters of branched fatty acid for coating compns.)

IT Polyesters, uses  
Polyesters, uses  
Polyesters, uses  
RL: **IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)**  
(polyurethane-polysiloxane-; crosslinkable copolymers of vinyl silane and vinyl esters of branched fatty acid for coating of)

IT Aminoplasts  
Aminoplasts  
RL: **IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)**  
(siloxane-, polyester-; crosslinkable copolymers of vinyl silane and vinyl esters of branched fatty acid for coating of)

IT 75-13-8D, Isocyanic acid, esters, polymers  
RL: MOA (Modifier or additive use); USES (Uses)  
(Polyisocyanates, crosslinking agents; crosslinkable copolymers of vinyl silane and vinyl esters of branched fatty acid for coating compns.)

IT 226935-81-5P 226935-82-6P 226935-84-8P 226935-85-9P, Cardura E 10-maleic anhydride-Silquest A 171-trimethylpentanediol-VeoVa 9 copolymer 226935-88-2P 226935-90-6P 227026-78-0P 227026-79-1P  
RL: **IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)**  
(crosslinkable copolymers of vinyl silane and vinyl esters of branched fatty acid for coating compns.)

IT **9003-08-1**  
RL: MOA (Modifier or additive use); USES (Uses)  
(crosslinking agents; crosslinkable **copolymers** of vinyl silane and vinyl esters of branched **fatty acid** for coating compns.)

IT **9003-08-1**  
RL: MOA (Modifier or additive use); USES (Uses)  
(crosslinking agents; crosslinkable **copolymers** of vinyl silane and vinyl esters of branched **fatty acid** for coating compns.)

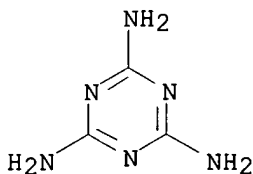
RN 9003-08-1 HCAPLUS

CN 1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde (9CI) (CA INDEX NAME)

CM 1

CRN 108-78-1

CMF C3 H6 N6



CM 2

CRN 50-00-0

CMF C H2 O

H<sub>2</sub>C=O

L76 ANSWER 11 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1997:526154 HCAPLUS  
 DN 127:222070  
 ED Entered STN: 16 Aug 1997  
 TI Pigment compositions with good hue, coloring ability, and dispersibility  
 IN Imagawa, Ippei; Koide, Masashi; Machida, Yasuaki; Ueki, Katsuyuki  
 PA Toyo Ink Mfg. Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 11 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C09B067-20  
 ICS C08L003-00; C08L091-06; C08L101-00; C09C003-08  
 CC 42-12 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 37, 40, 41, 74

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09202861	A2	19970805	JP 1996-12486	19960129
PRAI JP 1996-12486		19960129		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 09202861	ICM	C09B067-20
	ICS	C08L003-00; C08L091-06; C08L101-00; C09C003-08

OS MARPAT 127:222070

AB Pigment compns. useful as colorants for printing inks, coatings, thermoplastics, etc. contain 0.01-90% pigments and 1-80% Me(CHR)<sub>n</sub>CH<sub>2</sub>CO<sub>2</sub>H (I; R = H, Me; n = 20-50). Thus, I (R = H, n = 20) 50, 131 P (polyethylene wax) 100, Lionol Yellow GGT 300, and Sumikathene G 808 (polyethylene) 120 parts were mixed to prepare a pigment composition for printing inks.

ST pigment fatty acid ink; thermoplastic pigment fatty acid; hue pigment fatty acid; dispersibility pigment fatty acid; coloring ability pigment fatty acid

IT Carbon black, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
 (MB 45; pigments containing higher fatty acids for inks, coatings, and thermoplastics)

IT Fatty acids, uses

RL: MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (long-chain; pigments containing higher fatty acids for inks, coatings, and thermoplastics)

IT Coating materials

Electrophotographic toners

Pigments, nonbiological

(pigments containing higher fatty acids for inks, coatings, and

thermoplastics)

IT Paraffin waxes, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (pigments containing higher fatty acids for inks, coatings, and thermoplastics)

IT Polypropene fibers, uses  
 RL: **POF (Polymer in formulation)**; TEM (Technical or engineered material use); USES (Uses)  
 (pigments containing higher fatty acids for inks, coatings, and thermoplastics)

IT Polyesters, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (pigments containing higher fatty acids for inks, coatings, and thermoplastics)

IT Inks  
 (printing; pigments containing higher fatty acids for inks, coatings, and thermoplastics)

IT Plastics, uses  
 RL: **POF (Polymer in formulation)**; TEM (Technical or engineered material use); USES (Uses)  
 (thermoplastics; pigments containing higher fatty acids for inks, coatings, and thermoplastics)

IT 9010-79-1, Ethylene-propylene copolymer  
 RL: **POF (Polymer in formulation)**; TEM (Technical or engineered material use); USES (Uses)  
 (APAO-UT 2385; pigments containing higher fatty acids for inks, coatings, and thermoplastics)

IT 1047-16-1, Cinquasia Red YRT 759D  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (Cinquasia Red YRT 759D; pigments containing higher fatty acids for inks, coatings, and thermoplastics)

IT 5280-80-8, Cromophtal Yellow GR  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (Cromophtal Yellow GR; pigments containing higher fatty acids for inks, coatings, and thermoplastics)

IT 9003-53-6, Esbrite 2V  
 RL: **POF (Polymer in formulation)**; TEM (Technical or engineered material use); USES (Uses)  
 (Esbrite 2V; pigments containing higher fatty acids for inks, coatings, and thermoplastics)

IT 106565-43-9  
 RL: **POF (Polymer in formulation)**; TEM (Technical or engineered material use); USES (Uses)  
 (Hipol J 740, fibers; pigments containing higher fatty acids for inks, coatings, and thermoplastics)

IT 147-14-8, Lionol Blue FG 7330  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (Lionol Blue FG 7330; pigments containing higher fatty acids for inks, coatings, and thermoplastics)

IT 14302-13-7, Lionol Green 2Y 301  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (Lionol Green 2Y 301; pigments containing higher fatty acids for inks, coatings, and thermoplastics)

IT 6358-85-6, Lionol Yellow GGT  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (Lionol Yellow GGT; pigments containing higher fatty acids for inks, coatings, and thermoplastics)

IT 9002-88-4, Polyethylene  
 RL: **POF (Polymer in formulation)**; TEM (Technical or engineered

material use); USES (Uses)  
 (Mirason 68, Sumikathene G 808, Sanwax 131P and Topcoat PW-M 10;  
 pigments containing higher fatty acids for inks, coatings, and  
 thermoplastics)

IT 9003-07-0, Polypropylene  
 RL: **POF (Polymer in formulation)**; TEM (Technical or engineered  
 material use); USES (Uses)  
 (Noblen JH-G, fibers; pigments containing higher fatty acids for inks,  
 coatings, and thermoplastics)

IT 24968-12-5, Novadur 5010R3  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (Novadur 5010R3; pigments containing higher fatty acids for inks, coatings,  
 and thermoplastics)

IT 25067-34-9, Ethylene vinyl alcohol copolymer  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (Soarlite K; pigments containing higher fatty acids for inks, coatings, and  
 thermoplastics)

IT 24937-78-8, Ethylene-vinyl acetate copolymer  
 RL: **POF (Polymer in formulation)**; TEM (Technical or engineered  
 material use); USES (Uses)  
 (Sumitate HE 10; pigments containing higher fatty acids for inks, coatings,  
 and thermoplastics)

IT 13463-67-7, Titanium oxide (TiO<sub>2</sub>), uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (Tipure R 101; pigments containing higher fatty acids for inks, coatings,  
 and thermoplastics)

IT 1309-37-1, Red iron oxide, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (Toda Color 180ED; pigments containing higher fatty acids for inks,  
 coatings, and thermoplastics)

IT 57455-37-5, Ultramarine Blue  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (Ultramarine Blue 2000; pigments containing higher fatty acids for inks,  
 coatings, and thermoplastics)

IT **188004-08-2P**, Ethyl acrylate-formaldehyde-methacrylic  
 acid-melamine-methyl methacrylate-styrene **copolymer**  
 RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered  
 material use); **PREP (Preparation)**; USES (Uses)  
 (coatings; pigments containing higher **fatty acids** for  
 inks, coatings, and thermoplastics)

IT 506-48-9, Octacosanoic acid 2433-96-7, Tricosanoic acid 38232-07-4,  
 Heptatriacontanoic acid 106405-06-5 121730-38-9, Octatetracontanoic  
 acid  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (pigments containing higher fatty acids for inks, coatings, and  
 thermoplastics)

IT 28263-96-9, Ethyl acrylate-methacrylic acid-methyl methacrylate-styrene  
 copolymer  
 RL: **POF (Polymer in formulation)**; TEM (Technical or engineered  
 material use); USES (Uses)  
 (pigments containing higher fatty acids for inks, coatings, and  
 thermoplastics)

IT 1328-53-6, Lionol Green Y 102 26062-94-2 39283-39-1, Quinacridone Red  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (pigments containing higher fatty acids for inks, coatings, and  
 thermoplastics)

IT **188004-08-2P**, Ethyl acrylate-formaldehyde-methacrylic  
 acid-melamine-methyl methacrylate-styrene **copolymer**  
 RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered

material use); **PREP (Preparation)**; **USES (Uses)**  
 (coatings; pigments containing higher **fatty acids** for  
 inks, coatings, and thermoplastics)

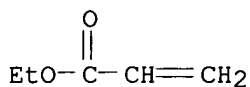
RN 188004-08-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene, ethyl  
 2-propenoate, formaldehyde, methyl 2-methyl-2-propenoate and  
 1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)

CM 1

CRN 140-88-5

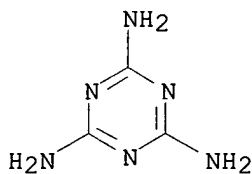
CMF C5 H8 O2



CM 2

CRN 108-78-1

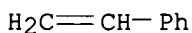
CMF C3 H6 N6



CM 3

CRN 100-42-5

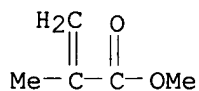
CMF C8 H8



CM 4

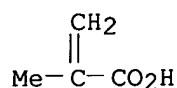
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CMF C5 H8 O2



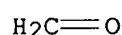
CM 5

CRN 79-41-4  
CMF C4 H6 O2



CM 6

CRN 50-00-0  
CMF C H2 O



L76 ANSWER 12 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1997:174518 HCAPLUS  
DN 126:173095  
ED Entered STN: 14 Mar 1997  
TI Alkyd resin compositions, coatings containing them with good handling properties and method for forming coating films  
IN Takeda, Yoshiro; Yoda, Kohei  
PA Lion Corp, Japan  
SO Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM C08G059-50  
ICS C08G059-14; C08K005-17; C08L063-00; C08L067-08; C09D163-00; C09D167-08

CC 42-8 (Coatings, Inks, and Related Products)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08325359	A2	19961210	JP 1995-131640	19950530
PRAI	JP 1995-131640		19950530		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 08325359	ICM	C08G059-50
	ICS	C08G059-14; C08K005-17; C08L063-00; C08L067-08; C09D163-00; C09D167-08

AB Title compns. comprise (A) epoxy-modified alkyd resins or mixts. of alkyd resins and epoxide group-terminated compds. and (B) RN[(CH<sub>2</sub>CH<sub>2</sub>O)mH](CH<sub>2</sub>CH<sub>2</sub>O)nH (R = C<sub>6</sub>-22 alkyl, alkenyl, or acyl; m + n = 1-10). Solvent-free coatings comprising the compns., melamine resin curing agents, and optionally neutralizing agents (for unreacted CO<sub>2</sub>H groups) are also claimed. Thus, oleic acid 226, trimethylolpropane 145, neopentyl glycol 112, phthalic anhydride 100, trimellitic anhydride 130, and Epikote 828 135 were heated at 150-220° for 4 h, mixed with 135 parts oleyl diethanolamide, neutralized with 85 parts Et<sub>3</sub>N, and diluted with H<sub>2</sub>O to give a transparent resin, 100 parts of which was mixed with 27 parts Cymel 325, 3.6 parts Carbon Black MA 100, and H<sub>2</sub>O, applied on an Al plate, and baked at 140° for 20 min to form coating film showing

60°-gloss 91.2%, pencil hardness H, no foaming and sagging, and good resistance against alkali (2% NaOH, 48 h), acid (5% H<sub>2</sub>SO<sub>4</sub>, 48 h), water (50°, 200 h) and weather (300 h).

ST coating epoxy alkyd melamine crosslinker; oleyl diethanolamide epoxy alkyd coating; solventless epoxy modified alkyd coating; melamine resin crosslinked alkyd coating

IT Epoxy resins, uses  
Epoxy resins, uses  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(alkyd, crosslinked; compns. for solventless coatings with good handling properties)

IT Alkyd resins  
Alkyd resins  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(epoxy, crosslinked; compns. for solventless coatings with good handling properties)

IT Coating materials  
(solventless; epoxy-modified melamine resin-crosslinkable alkyd resin compns. for)

IT Amides, uses  
Amines, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(tertiary, handling improvers; in alkyd-epoxy resin compns. for solventless coatings)

IT 93-83-4, Oleic diethanolamide 120-40-1, Lauric diethanolamide 136-26-5, Capric acid diethanolamide 31587-79-8  
RL: MOA (Modifier or additive use); USES (Uses)  
(handling improvers; in alkyd-epoxy resin compns. for solventless coatings)

IT 187040-99-9P  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)  
(manufacture and use in solventless coatings with good handling properties)

IT **187041-02-7**  
RL: **POF (Polymer in formulation)**; PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(solventless coatings with good handling properties from)

IT **187041-02-7**  
RL: **POF (Polymer in formulation)**; PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(solventless coatings with good handling properties from)

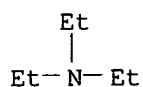
RN 187041-02-7 HCAPLUS

CN 5-Isobenzofurancarboxylic acid, 1,3-dihydro-1,3-dioxo-, polymer with (chloromethyl)oxirane, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, formaldehyde, 1,3-isobenzofurandione, 4,4'-(1-methylethylidene)bis[phenol] and 1,3,5-triazine-2,4,6-triamine, (9Z)-9-octadecenoate, compd. with N,N-diethylethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 121-44-8

CMF C6 H15 N



CM 2

CRN 187041-01-6

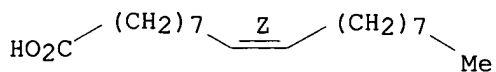
CMF C18 H34 O2 . x (C15 H16 O2 . C9 H4 O5 . C8 H4 O3 . C6 H14 O3 . C5 H12 O2 . C3 H6 N6 . C3 H5 Cl O . C H2 O)x

CM 3

CRN 112-80-1

CMF C18 H34 O2

Double bond geometry as shown.



CM 4

CRN 187041-00-5

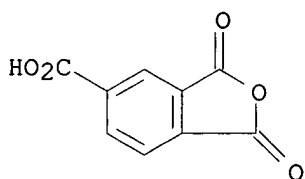
CMF (C15 H16 O2 . C9 H4 O5 . C8 H4 O3 . C6 H14 O3 . C5 H12 O2 . C3 H6 N6 . C3 H5 Cl O . C H2 O)x

CCI PMS

CM 5

CRN 552-30-7

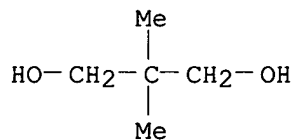
CMF C9 H4 O5



CM 6

CRN 126-30-7

CMF C5 H12 O2

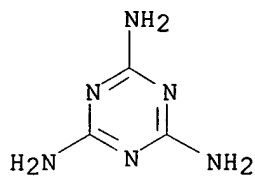




CM 7

CRN 108-78-1

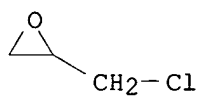
CMF C3 H6 N6



CM 8

CRN 106-89-8

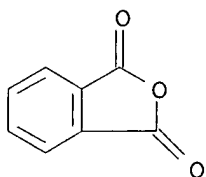
CMF C3 H5 Cl O



CM 9

CRN 85-44-9

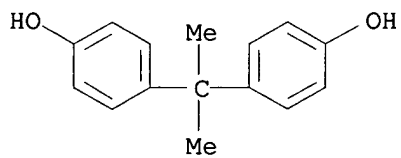
CMF C8 H4 O3



CM 10

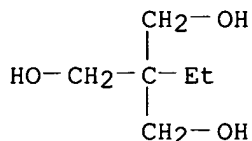
CRN 80-05-7

CMF C15 H16 O2



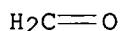
CM 11

CRN 77-99-6  
CMF C6 H14 O3



CM 12

CRN 50-00-0  
CMF C H2 O



L76 ANSWER 13 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1997:111075 HCAPLUS  
DN 126:119155  
ED Entered STN: 17 Feb 1997  
TI Thermal-curable aqueous coating compositions for metals  
IN Iwahashi, Masanori; Moriki, Juichiro; Oonishi, Kyoshi  
PA Dainippon Ink & Chemicals, Japan  
SO Jpn. Kokai Tokkyo Koho, 19 pp.  
CODEN: JKXXAF

DT Patent  
LA Japanese  
IC ICM C09D163-00  
ICS C08G059-16; C09D161-06; C09D161-20; C09D175-00; C09D201-00  
CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08325509	A2	19961210	JP 1996-72148	19960327
PRAI	JP 1995-71484		19950329		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 08325509	ICM	C09D163-00
	ICS	C08G059-16; C09D161-06; C09D161-20; C09D175-00; C09D201-00

AB Title compns., showing good storage stability, coatability, adhesion, anticorrosion, and hardness, comprise (a) epoxy resins modified with  $\geq 2$  P-bonded OH group-containing compds. and carboxylic acids selected from (un)saturated carboxylic acid (derivs.), aromatic carboxylic acid (derivs.), and oxycarboxylic acid (derivs.), (b) water-soluble or dispersible resins (excluding the above modified epoxy resins), and (c) hardeners selected from aminoplasts, phenoplasts, and blocked isocyanate resins, optionally and (d) pigments. A stainless steel plate was coated with a clear or white (containing TiO<sub>2</sub>) aqueous composition (storage-stable at 40° for 1 mo) containing Epiclone 1050 propionate phosphate salt with dimethylethanolamine,

- HCHO-benzoguanamine copolymer, and acrylic acid-Bu acrylate-Et acrylate-2-hydroxyethyl methacrylate-styrene copolymer dimethylethanolamine salt to a thickness of 5-7  $\mu\text{m}$  or 15-20  $\mu\text{m}$  for clear and white composition, resp., and baked at 260° for 45 s to form a surface showing good adhesion, anticorrosion, and hardness with high transparency and gloss for clear and white composition, resp.
- ST thermal curable acrylic epoxy aq coating; polyester epoxy thermal curable aq coating; alky resin epoxy thermal curable coating; storage stability coatability aq coating metal; epoxy resin phosphate carboxylate aq coating
- IT Epoxy resins, uses  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (acrylic or polyester- or alkyd resin-; storage-stable/thermal-curable/anticorrosive aqueous coatings with coatability for metals)
- IT Coating materials  
 (anticorrosive, clear or colored; epoxy resin phosphate carboxylate/water-dispersible resin/hardener-containing thermal-curable aqueous coatings for metals)
- IT Fatty acids, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (branched fatty acids, esters with epoxy resin phosphates; alkyd resin/melamine resin-containing thermal-curable aqueous coatings for metals)
- IT Fatty acids, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (castor-oil and tall-oil; epoxy resin phosphate carboxylate/melamine resin-containing thermal-curable aqueous coatings for metals)
- IT Metals, miscellaneous  
 RL: MSC (Miscellaneous)  
 (epoxy resin phosphate carboxylate/water-dispersible resin/hardener-containing thermal-curable aqueous coatings for metals)
- IT Acrylic polymers, uses  
 Alkyd resins  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (epoxy resin-; storage-stable/thermal-curable/anticorrosive aqueous coatings with coatability for metals)
- IT Aminoplasts  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polymers with alkyd resins and epoxy resin phosphate carboxylates, salts with amines; storage-stable/thermal-curable/anticorrosive aqueous coatings with coatability for metals)
- IT 65-85-ODP, Benzoic acid, esters with epoxy resin phosphates, polymers with alkyd resins and melamine resin, salts with amines, uses 79-10-7DP, 2-Propenoic acid, esters with epoxy resin phosphates, polymers with alkyd resins and melamine resin, salts with amines, uses 88-99-3DP, 1,2-Benzenedicarboxylic acid, polymers with castor oil and tall oil fatty acids and polyols and epoxy resin phosphate carboxylates, salts with amines, uses 108-01-0DP, salts with reaction products of alkyd resins and epoxy resin phosphate carboxylates 115-77-5DP, polymers with castor oil and tall oil fatty acids and epoxy resin phosphate carboxylates, salts with amines 121-44-8DP, salts with reaction products of alkyd resins and epoxy resin phosphate carboxylates 121-91-5DP, 1,3-Benzenedicarboxylic acid, polymers with castor oil and tall oil fatty acids and polyols and epoxy resin phosphate carboxylates, salts with amines, uses 126-30-7DP, polymers with castor oil and tall oil fatty acids and epoxy resin phosphate carboxylates, salts with amines 7664-38-2DP, Phosphoric acid, esters with epoxy resin carboxylates, polymers with alkyd resins and

melamine resin, salts with amines, uses 9003-08-1DP, Super Beckamine S 695, polymers with alkyd resins and epoxy resin phosphate carboxylates, salts with amines 25068-38-6DP, phosphates and carboxylates, polymers with alkyd resins and melamine resin, salts with amines 186047-92-7P 186047-95-0P, uses 186047-98-3P 186048-01-1P **186048-04-4P** 186148-04-9P 186148-29-8P 186148-31-2P

RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
(storage-stable/thermal-curable/anticorrosive aqueous coatings with coatability for metals)

IT **186048-04-4P**

RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
(storage-stable/thermal-curable/anticorrosive aqueous coatings with coatability for metals)

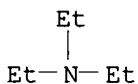
RN 186048-04-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with butyl 2-propenoate, (chloromethyl)oxirane polymer with 4,4'-(1-methylethylidene)bis[phenol] octadecanoate phosphate, ethenylbenzene, ethyl 2-propenoate, formaldehyde, 6-phenyl-1,3,5-triazine-2,4-diamine and 2-propenoic acid, compd. with N,N-diethylethanamine and 2-(dimethylamino)ethanol (9CI) (CA INDEX NAME)

CM 1

CRN 121-44-8

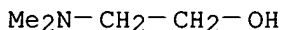
CMF C6 H15 N



CM 2

CRN 108-01-0

CMF C4 H11 N O



CM 3

CRN 186048-03-3

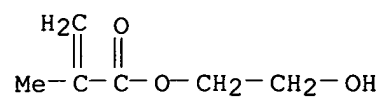
CMF (C18 H36 O2 . x (C15 H16 O2 . C3 H5 Cl O)x . C9 H9 N5 . C8 H8 . C7 H12 O2 . C6 H10 O3 . C5 H8 O2 . C3 H4 O2 . C H2 O . x H3 O4 P)x

CCI PMS

CM 4

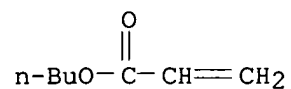
CRN 868-77-9

CMF C6 H10 O3



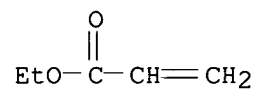
CM 5

CRN 141-32-2  
CMF C7 H12 O2



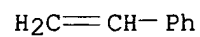
CM 6

CRN 140-88-5  
CMF C5 H8 O2



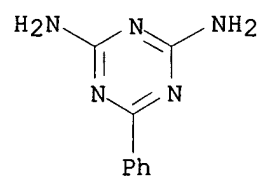
CM 7

CRN 100-42-5  
CMF C8 H8



CM 8

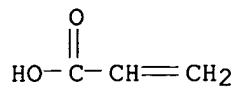
CRN 91-76-9  
CMF C9 H9 N5



CM 9

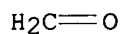
CRN 79-10-7

CMF C3 H4 O2



CM 10

CRN 50-00-0  
CMF C H2 O

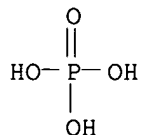


CM 11

CRN 186048-02-2  
CMF C18 H36 O2 . x (C15 H16 O2 . C3 H5 Cl O)x . x H3 O4 P

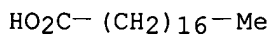
CM 12

CRN 7664-38-2  
CMF H3 O4 P



CM 13

CRN 57-11-4  
CMF C18 H36 O2

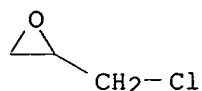


CM 14

CRN 25068-38-6  
CMF (C15 H16 O2 . C3 H5 Cl O)x  
CCI PMS

CM 15

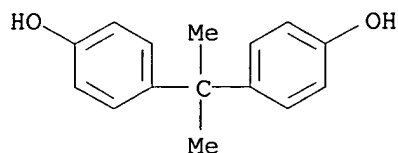
CRN 106-89-8  
CMF C3 H5 Cl O



CM 16

CRN 80-05-7

CMF C15 H16 O2



L76 ANSWER 14 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1997:2492 HCAPLUS  
 DN 126:33155  
 ED Entered STN: 04 Jan 1997  
 TI Scratch-resistant coating composition for clearcoats and topcoats  
 IN Huybrechts, Jozef; Kernaghan, Stuart Alexander; Vervoort, Robert  
 PA E. I. Du Pont de Nemours & Co., USA; Huybrechts, Jozef; Kernaghan, Stuart  
 Alexander; Vervoort, Robert  
 SO PCT Int. Appl., 22 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM C09D133-06  
 ICS C09D167-00; C09D175-04; C08G018-40  
 CC 42-10 (Coatings, Inks, and Related Products)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9634924	A1	19961107	WO 1996-US5950	19960429
	W: AU, BR, CA, CN, JP, KR, MX, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9656329	A1	19961121	AU 1996-56329	19960425
	AU 718129	B2	20000406		
	CA 2219887	AA	19961107	CA 1996-2219887	19960429
	EP 824573	A1	19980225	EP 1996-913260	19960429
	EP 824573	B1	20001206		
	R: BE, DE, ES, FR, GB, IT, NL, SE, PT				
	CN 1189850	A	19980805	CN 1996-195179	19960429
	BR 9608425	A	19990330	BR 1996-8425	19960429
	JP 11506477	T2	19990608	JP 1996-533399	19960429
	ES 2153573	T3	20010301	ES 1996-913260	19960429
	PT 824573	T	20010430	PT 1996-913260	19960429
	US 5977256	A	19991102	US 1997-930666	19971029
PRAI	US 1995-433284	A	19950502		
	WO 1996-US5950	W	19960429		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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WO 9634924 ICM C09D133-06  
ICS C09D167-00; C09D175-04; C08G018-40

AB A crosslinkable coating composition comprises (1) .apprx.15-70% acrylic polyol (weight-average mol. weight .apprx.2500-40,000, OH value 50-180 mg KOH/g, and Tg -30 to +70°); (2) 5-60% optionally substituted polyester polyol (weight-average mol. weight .apprx.2000-80,000, OH value .apprx.50-220 mg KOH/g, optional substituent selected from ≥1 member of the group trialkoxysilyl and urethane) and the polyol comprising ≥10% by weight of the hydrogenated reaction product of ≥1 of dimer fatty acid and polyol, polyacid and dimer alc., and dimer fatty acid and dimer alc.; and (3) .apprx.10-60% crosslinking agent selected from ≥1 alkoxyated melamine-formaldehyde adduct and a polyisocyanate. The composition is useful for coating metallic substrates, especially as clearcoats and topcoats. The improved properties are derived from the dimer acid/alc. component of the polyester polyol. Thus, an acrylic polyol, a polyester polyol containing dimer fatty acid, and melamine-formaldehyde polymer were formulated into a clearcoat composition which exhibited excellent scratch resistance and good appearance.

ST scratch resistant crosslinkable coating compn; acrylic polyol polyester polyol coating compn; dimer fatty acid polyester polyol coating; clearcoat compn scratch resistant; topcoat compn scratch resistant

IT Aminoplasts  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(Luwipal, crosslinking agent; scratch-resistant crosslinkable coating compns. containing acrylic polyol, dimer fatty acid polyester polyol, and crosslinking agent)

IT Crosslinking agents  
(isocyanates and melamine-formaldehyde resins; scratch-resistant crosslinkable coating compns. containing acrylic polyol, dimer fatty acid polyester polyol, and crosslinking agent)

IT Acrylic polymers, uses  
Polyesters, uses  
RL: **IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)**  
(scratch-resistant crosslinkable coating compns. containing acrylic polyol, dimer fatty acid polyester polyol, and crosslinking agent)

IT Coating materials  
(scratch-resistant, clearcoats and topcoats; scratch-resistant crosslinkable coating compns. containing acrylic polyol, dimer fatty acid polyester polyol, and crosslinking agent)

IT **9003-08-1, Melamine-formaldehyde copolymer**  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(Luwipal, crosslinking agent; scratch-resistant crosslinkable coating compns. containing acrylic polyol, dimer **fatty acid** polyester polyol, and crosslinking agent)

IT 51097-42-8P, Acrylic acid-butyl methacrylate-2-ethylhexyl acrylate-2-hydroxyethyl methacrylate-styrene copolymer 55774-94-2P, Acrylic acid-butyl methacrylate-2-ethylhexyl methacrylate-2-hydroxyethyl methacrylate-styrene copolymer 94798-18-2P, Butyl acrylate-butyl methacrylate-2-hydroxyethyl acrylate-styrene copolymer 184642-78-2P 184642-79-3P 184642-80-6P 184642-81-7P 184642-82-8P 184642-83-9P 184642-84-0P 184642-85-1P 184642-86-2P  
RL: **IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material**



use); **PREP (Preparation)**; USES (Uses)

(scratch-resistant crosslinkable coating compns. containing acrylic polyol, dimer fatty acid polyester polyol, and crosslinking agent)

IT **9003-08-1, Melamine-formaldehyde copolymer**

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(Luwipal, crosslinking agent; scratch-resistant crosslinkable coating compns. containing acrylic polyol, dimer fatty acid polyester polyol, and crosslinking agent)

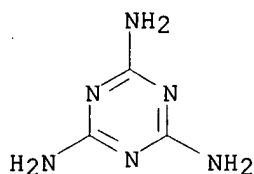
RN 9003-08-1 HCAPLUS

CN 1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde (9CI) (CA INDEX NAME)

CM 1

CRN 108-78-1

CMF C3 H6 N6



CM 2

CRN 50-00-0

CMF C H2 O

H<sub>2</sub>C=O

L76 ANSWER 15 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:171905 HCAPLUS

DN 124:205109

ED Entered STN: 26 Mar 1996

TI Alkyd resin solutions for anticorrosive coatings containing melamine resins

IN Vaszilcsin, Ileana; Dalea, Ion

PA Intreprinderea de Lacuri si Vopsele "Azur" Timisoara, Rom.

SO Rom., 3 pp.

CODEN: RUXXA3

DT Patent

LA Romanian

IC ICM C08G063-12

CC 42-8 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	RO 104961	B1	19941210	RO 1989-140037	19890603
PRAI	RO 1989-140037		19890603		

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

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RO 104961 ICM C08G063-12

AB Title solns. are manufactured from soybean-oil fatty acid 19, phthalic anhydride 26.7, trimethylolpropane 24.6, Ph3PO3 (50% solution) 0.04, BuOH 6.5, and xylene 51.5 parts and exhibit acid index 25 mg KOH/g resin, 4-mm-diameter cup viscosity 90-125 s, solids content 53-57%, and I color index  $\leq 20$  mg/100 g (50% solution). These solns. replace alkyd resin solns. prepared from castor oil instead of soybean-oil fatty acids and provide coatings that cure at room temperature in 24 h or at 80° in 1 h.

ST alkyd coating soybean fatty acid; melamine resin crosslinker alkyd coating; trimethylolpropane alkyd coating anticorrosive; phthalic alkyd coating anticorrosive

IT Alkyd resins  
 RL: **IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)**  
 (esters, with soybean-oil fatty acids; alkyd resin solns. for anticorrosive coatings containing melamine resins)

IT Coating materials  
 (anticorrosive, alkyd resin solns. for anticorrosive coatings containing melamine resins)

IT Fatty acids, uses  
 RL: **IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)**  
 (soya, esters, with alkyd resins; alkyd resin solns. for anticorrosive coatings containing melamine resins)

IT 30525-36-1DP, Phthalic anhydride-trimethylolpropane copolymer, esters with soybean-oil fatty acids  
 RL: **IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)**  
 (alkyd resin solns. for anticorrosive coatings containing melamine resins)

IT **174572-34-0DP**, Formaldehyde-melamine-phthalic anhydride-trimethylolpropane **copolymer**, esters with soybean-oil **fatty acids**  
 RL: **IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)**  
 (cured coating; alkyd resin solns. for anticorrosive coatings containing melamine resins)

IT **174572-34-0DP**, Formaldehyde-melamine-phthalic anhydride-trimethylolpropane **copolymer**, esters with soybean-oil **fatty acids**  
 RL: **IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)**  
 (cured coating; alkyd resin solns. for anticorrosive coatings containing melamine resins)

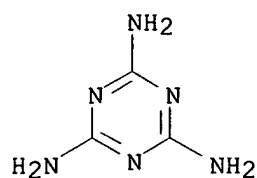
RN 174572-34-0 HCAPLUS

CN Formaldehyde, polymer with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, 1,3-isobenzofurandione and 1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)

CM 1

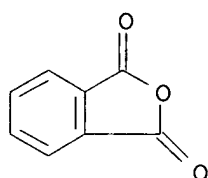
CRN 108-78-1

CMF C3 H6 N6



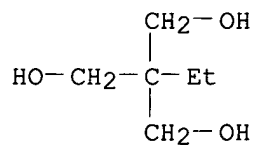
CM 2

CRN 85-44-9  
CMF C8 H4 O3



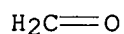
CM 3

CRN 77-99-6  
CMF C6 H4 O3



CM 4

CRN 50-00-0  
CMF C H2 O



L76 ANSWER 16 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1995:441468 HCAPLUS  
DN 123:115588  
ED Entered STN: 25 Mar 1995  
TI Resin compositions for water-thinned coatings  
IN Shima, Toshihide; Oosumi, Tatsuya; Yoshida, Michiro  
PA Sanyo Chemical Ind Ltd, Japan  
SO Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DT Patent

LA Japanese  
 IC ICM C09D167-00  
 ICS C09D161-32  
 CC 42-10 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 55, 56

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07011188	A2	19950113	JP 1994-113689	19940428
PRAI	JP 1993-125258		19930428		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 07011188	ICM	C09D167-00
	ICS	C09D161-32

AB The compns., useful for top coats of metal cans, comprise (A) polyesters composed of polyol-alkylene oxide adducts and polycarboxylic acids and (B) amino resins. Thus, trimethylolpropane-propylene oxide adduct 48, bisphenol A-ethylene oxide adduct 5, trimethylolpropane 9, pentaerythritol 11, stearic acid 7, phthalic anhydride 15, and trimellitic acid anhydride 5 parts were polymerized at 160° to give a polyester, 25 parts of which was blended with Cymel 327 28, H2O 35, Bu cellosolve 12, and diethanolamine 0.6 part, applied on an Al plate, and heated at 230° for 2 min to form a coating showing pencil hardness 3 H, du-Pont impact strength 50, cross-cut adhesion 100/100 after 30-min immersion in H2O at 30°, and good appearance.

ST polyester aminoplast coating can; water resistance coating polyester aminoplast; impact resistance coating polyester melamine

IT Cans  
 (amino resin-polyester-based water-thinned coatings with good impact and water resistance for cans)

IT Polyesters, uses  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (acrylic-aminoplast-, amino resin-polyester-based water-thinned coatings with good impact and water resistance for cans)

IT Aminoplasts  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (acrylic-polyester-, amino resin-polyester-based water-thinned coatings with good impact and water resistance for cans)

IT Aminoplasts  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (alkyd resin-, amino resin-polyester-based water-thinned coatings with good impact and water resistance for cans)

IT Alkyd resins  
 Polyesters, uses  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (aminoplast-, amino resin-polyester-based water-thinned coatings with good impact and water resistance for cans)

IT Coating materials  
 (impact- and water-resistant, water-thinned, amino resin-polyester-based water-thinned coatings with good impact and water resistance for cans)

IT Aminoplasts  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(polyester-, amino resin-polyester-based water-thinned coatings with good impact and water resistance for cans)

IT 165248-51-1P 165248-52-2P 166019-91-6P 166019-93-8P  
 RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM  
 (Technical or engineered material use); **PREP (Preparation)**; USES  
 (Uses)  
 (amino resin-polyester-based water-thinned coatings with good impact and water resistance for cans)

IT 7429-90-5, Aluminum, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (amino resin-polyester-based water-thinned coatings with good impact and water resistance for cans)

IT 166019-91-6P 166019-93-8P  
 RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM  
 (Technical or engineered material use); **PREP (Preparation)**; USES  
 (Uses)  
 (amino resin-polyester-based water-thinned coatings with good impact and water resistance for cans)

RN 166019-91-6 HCAPLUS

CN 5-Isobenzofurancarboxylic acid, 1,3-dihydro-1,3-dioxo-, polymer with 2,2-bis(hydroxymethyl)-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, formaldehyde,  $\alpha$ -hydro- $\omega$ -hydroxypoly[oxy(methyl-1,2-ethanediyl)] ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), 1,3-isobenzofurandione,  $\alpha,\alpha'$ -[(1-methylethylidene)di-4,1-phenylene]bis[ $\omega$ -hydroxypoly(oxy-1,2-ethanediyl)] and 1,3,5-triazine-2,4,6-triamine, octadecanoate (ester) (9CI) (CA INDEX NAME)

CM 1

CRN 57-11-4

CMF C18 H36 O2

HO<sub>2</sub>C-(CH<sub>2</sub>)<sub>16</sub>-Me

CM 2

CRN 166019-90-5

CMF (C9 H4 O5 . C8 H4 O3 . C6 H14 O3 . C5 H12 O4 . C3 H6 N6 . (C3 H6 O)n (C3 H6 O)n (C3 H6 O)n C6 H14 O3 . (C2 H4 O)n (C2 H4 O)n C15 H16 O2 . C H2 O)x

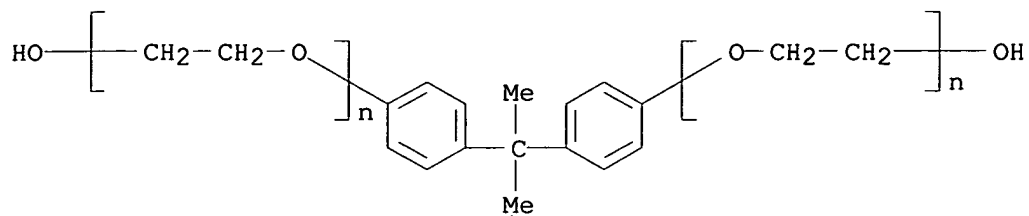
CCI PMS

CM 3

CRN 32492-61-8

CMF (C2 H4 O)n (C2 H4 O)n C15 H16 O2

CCI PMS

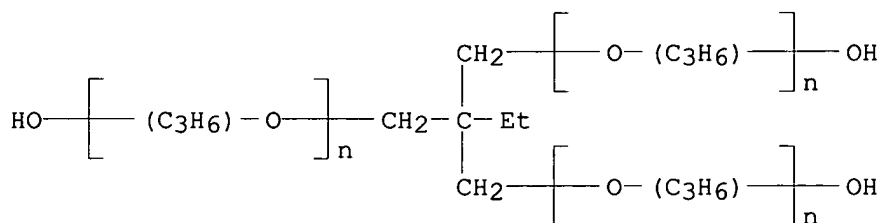


CM 4

CRN 25723-16-4

CMF (C3 H6 O)<sub>n</sub> (C3 H6 O)<sub>n</sub> (C3 H6 O)<sub>n</sub> C6 H14 O3

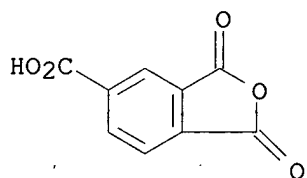
CCI IDS, PMS



CM 5

CRN 552-30-7

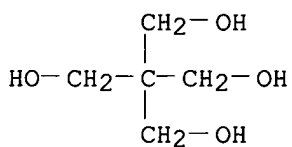
CMF C9 H4 O5



CM 6

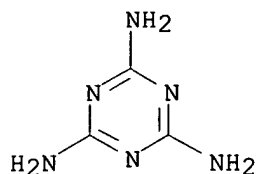
CRN 115-77-5

CMF C5 H12 O4



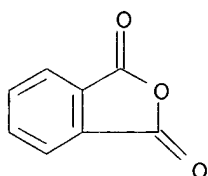
CM 7

CRN 108-78-1  
CMF C3 H6 N6



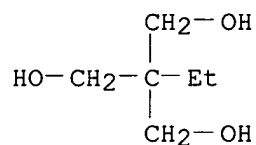
CM 8

CRN 85-44-9  
CMF C8 H4 O3



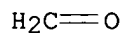
CM 9

CRN 77-99-6  
CMF C6 H14 O3



CM 10

CRN 50-00-0  
CMF C H2 O



RN 166019-93-8 HCAPLUS  
CN 5-Isobenzofurancarboxylic acid, 1,3-dihydro-1,3-dioxo-, polymer with 2,2-bis(hydroxymethyl)-1,3-propanediol, butyl 2-propenoate, ethenylbenzene, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, formaldehyde,  $\alpha$ -hydro- $\omega$ -hydroxypoly[oxy(methyl-1,2-ethanediyl)] ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), 2-hydroxyethyl

2-methyl-2-propenoate, 1,3-isobenzofurandione,  $\alpha,\alpha'$ -[(1-methylethylidene)di-4,1-phenylene]bis[ $\omega$ -hydroxypoly(oxy-1,2-ethanediyl)], 2-propenoic acid and 1,3,5-triazine-2,4,6-triamine, octadecanoate (ester), compd. with 2-(dimethylamino)ethanol (9CI) (CA INDEX NAME)

CM 1

CRN 108-01-0  
CMF C4 H11 N O

$\text{Me}_2\text{N}-\text{CH}_2-\text{CH}_2-\text{OH}$

CM 2

CRN 57-11-4  
CMF C18 H36 O2

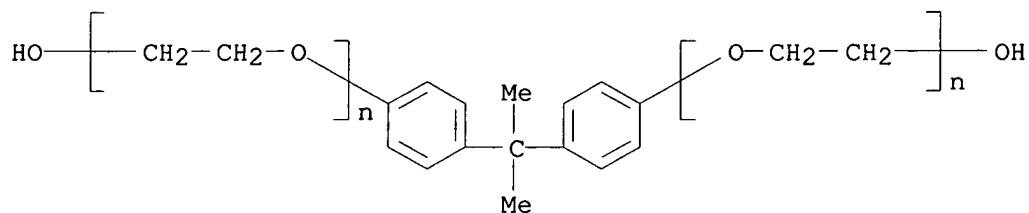
$\text{HO}_2\text{C}-(\text{CH}_2)_{16}-\text{Me}$

CM 3

CRN 166019-92-7  
CMF (C9 H4 O5 . C8 H8 . C8 H4 O3 . C7 H12 O2 . C6 H14 O3 . C6 H10 O3 . C5 H12 O4 . C3 H6 N6 . (C3 H6 O)n (C3 H6 O)n (C3 H6 O)n C6 H14 O3 . C3 H4 O2 . (C2 H4 O)n (C2 H4 O)n C15 H16 O2 . C H2 O)x  
CCI PMS

CM 4

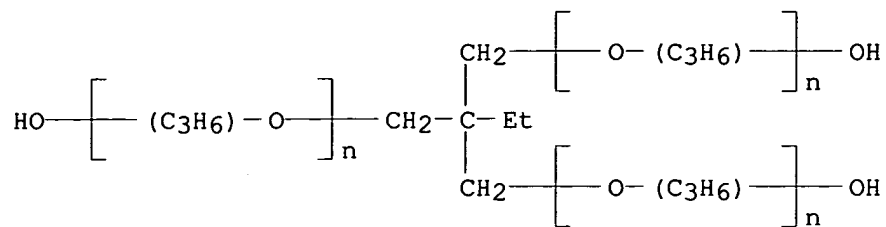
CRN 32492-61-8  
CMF (C2 H4 O)n (C2 H4 O)n C15 H16 O2  
CCI PMS



CM 5

CRN 25723-16-4  
CMF (C3 H6 O)n (C3 H6 O)n (C3 H6 O)n C6 H14 O3  
CCI IDS, PMS

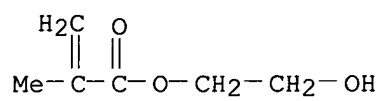




CM 6

CRN 868-77-9

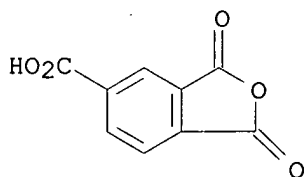
CMF C6 H10 O3



CM 7

CRN 552-30-7

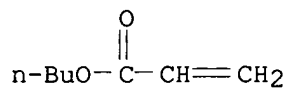
CMF C9 H4 O5



CM 8

CRN 141-32-2

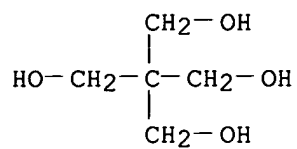
CMF C7 H12 O2



CM 9

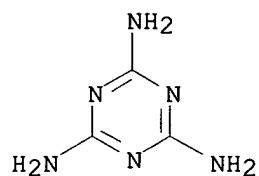
CRN 115-77-5

CMF C5 H12 O4



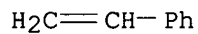
CM 10

CRN 108-78-1  
CMF C3 H6 N6



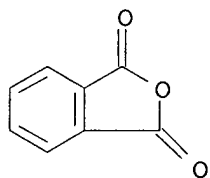
CM 11

CRN 100-42-5  
CMF C8 H8



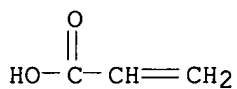
CM 12

CRN 85-44-9  
CMF C8 H4 O3



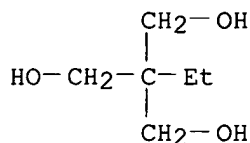
CM 13

CRN 79-10-7  
CMF C3 H4 O2



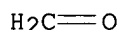
CM 14

CRN 77-99-6  
CMF C6 H14 O3



CM 15

CRN 50-00-0  
CMF C H2 O



L76 ANSWER 17 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1994:9822 HCAPLUS

DN 120:9822

ED Entered STN: 08 Jan 1994

TI Fireproofing agents for polyurethanes

IN Hashimoto, Yoichi

PA Matsushita Electric Works Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08L061-20

ICS C08K005-09; C08L075-04

CC 37-6 (Plastics Manufacture and Processing)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05230330	A2	19930907	JP 1992-36247	19920224
PRAI	JP 1992-36247		19920224		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 05230330	ICM	C08L061-20
	ICS	C08K005-09; C08L075-04

AB Title agents comprising highly condensed amino resins and 0.1-100 phr higher fatty acid metal salts are blended in polyols. Thus, treating urea and HCHO at a mol ratio of 1:1.5 at 95° for 1 h and further treating the resulting resin at 150° for 1 h gave a highly condensed urea resin, 100 parts of which was blended with 1 part Zn stearate to give a fireproofing agent. A mixture of 80 parts polypropylene glycol and 20 parts the fireproofing agent formed no precipitate during 1-wk. storage at 20°.

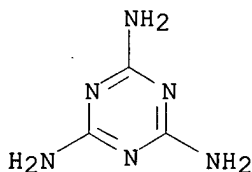
ST urea resin fireproofing agent polyurethane; zinc stearate aminoplast

fireproofing polyurethane; polyoxyalkylene zinc stearate aminoplast  
fireproofing  
IT Fireproofing agents  
(amino resins and fatty acid metal salts, polyols containing, for  
polyurethanes)  
IT Urethane polymers, miscellaneous  
RL: **POF (Polymer in formulation); USES (Uses)**  
(fireproofing agents for, polyols containing amino resins and fatty acid  
metal salts for)  
IT Aminoplasts  
RL: **USES (Uses)**  
(fireproofing agents, containing fatty acid metal salts, polyols containing,  
for polyurethanes)  
IT Fatty acids, compounds  
RL: **USES (Uses)**  
(metal salts, amino resins containing, fireproofing agents, polyols  
containing,  
for polyurethanes)  
IT 557-05-1, Zinc stearate  
RL: **USES (Uses)**  
(amino resins containing, fireproofing agents, polyols containing, for  
polyurethanes)  
IT 25322-68-3, Polyethylene glycol 25322-69-4, Polypropylene glycol  
RL: **USES (Uses)**  
(containing amino resins and fatty acid metal salts, for fire-resistant  
polyurethanes)  
IT **9003-08-1P, Formaldehyde-melamine copolymer**  
9011-05-6P, Formaldehyde-urea copolymer  
RL: **PREP (Preparation)**  
(preparation of, fireproofing agents, containing **fatty acid**  
metal salts, polyols containing, for polyurethanes)  
IT **9003-08-1P, Formaldehyde-melamine copolymer**  
RL: **PREP (Preparation)**  
(preparation of, fireproofing agents, containing **fatty acid**  
metal salts, polyols containing, for polyurethanes)  
RN 9003-08-1 HCAPLUS  
CN 1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde (9CI) (CA INDEX  
NAME)

CM 1

CRN 108-78-1

CMF C3 H6 N6



CM 2

CRN 50-00-0

CMF C H2 O

H<sub>2</sub>C=O

L76 ANSWER 18 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1993:498102 HCAPLUS  
 DN 119:98102  
 ED Entered STN: 04 Sep 1993  
 TI Aqueous-dispersion coatings containing epoxy-denatured alkyd resins  
 IN Taniguchi, Hitoshi; Ishidoya, Masahiro; Nakashima, Ken; Ogawa, Hisao  
 PA Nippon Oil and Fats Co., Ltd., Japan  
 SO U.S., 9 pp. Cont. of U.S. Ser. No. 206,477, abandoned.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 IC ICM C08K003-20  
 NCL 523403000  
 CC 42-10 (Coatings, Inks, and Related Products)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5202364	A	19930413	US 1991-719668	19910624
PRAI	US 1988-206477		19880613		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 5202364	ICM	C08K003-20
	NCL	523403000

AB Aqueous dispersions that provide anticorrosive coatings with good appearance on vertical surfaces contain products of the neutralization of reaction products having acid value 10-30 prepared by reaction of epoxy resins and epoxy-modified alkyd resins. The viscosity of the dispersions are controllable by addition of organic solvents while maintaining the storage stability. Thus, reaction of lauric acid, adipic acid, Epikote 828, trimellitic anhydride, neopentyl glycol, and trimethylolpropane and reaction of the resulting product (I) with Epikote 1007 (II) gave a product (III) with acid number 16. Neutralizing III with dimethylethanolamine (IV), dispersing the neutralized product in water, and mixing the dispersion with a black pigment paste, a melamine resin crosslinker, addnl. IV, p-toluenesulfonic acid, and addnl. water gave a composition that exhibited better storage stability after addition of organic solvents than a similar composition in which I and II were presence as a mixture

and not a prereacted product.

ST epoxy alkyd dispersion coating; laurate alkyd epoxy coating; storage stable epoxy alkyd coating; anticorrosive epoxy alkyd coating; trimethylolpropane alkyd epoxy coating; neopentyl glycol alkyd epoxy coating; trimellitate alkyd epoxy coating; adipate alkyd epoxy coating; bisphenol A epoxy alkyd coating

IT Epoxy resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
 (alkyd-, coatings, aqueous-dispersion, with good storage stability and solvent dilutability, for vertical surfaces)

IT Coating materials

(anticorrosive, dispersion, water-thinned, alkyd-epoxy, with good storage stability and solvent dilutability, for vertical surfaces)

IT Alkyd resins

RL: TEM (Technical or engineered material use); USES (Uses)

(epoxy, coatings, aqueous-dispersion, with good storage stability and solvent dilutability, for vertical surfaces)

IT 149368-95-6P 149369-00-6P  
 RL: PREP (Preparation)  
 (manufacture of, as anticorrosive coatings for vertical surfaces)

IT 25068-38-6DP, Epikote 1007, reaction products with epoxy-modified alkyd resins 68647-08-5P 111308-82-8P 126902-73-6P  
 RL: PREP (Preparation)  
 (manufacture of, for aqueous dispersion anticorrosive coatings with good storage stability and solvent dilutability)

IT 149368-95-6P 149369-00-6P  
 RL: PREP (Preparation)  
 (manufacture of, as anticorrosive coatings for vertical surfaces)

RN 149368-95-6 HCAPLUS  
 CN Hexanedioic acid, polymer with (chloromethyl)oxirane, 1,3-dihydro-1,3-dioxo-5-isobenzofurancarboxylic acid, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, formaldehyde, 4,4'-(1-methylethylidene)bis[phenol] and 1,3,5-triazine-2,4,6-triamine, dodecanoate (ester) (9CI) (CA INDEX NAME)

CM 1

CRN 143-07-7  
 CMF C12 H24 O2

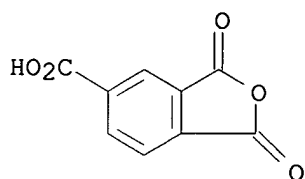
HO<sub>2</sub>C-(CH<sub>2</sub>)<sub>10</sub>-Me

CM 2

CRN 163418-53-9  
 CMF (C15 H16 O2 . C9 H4 O5 . C6 H14 O3 . C6 H10 O4 . C5 H12 O2 . C3 H6 N6 . C3 H5 Cl O . C H2 O)x  
 CCI PMS

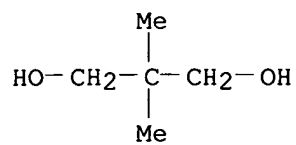
CM 3

CRN 552-30-7  
 CMF C9 H4 O5



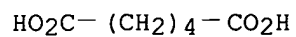
CM 4

CRN 126-30-7  
 CMF C5 H12 O2



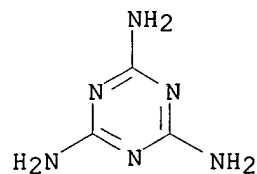
CM 5

CRN 124-04-9  
CMF C6 H10 O4



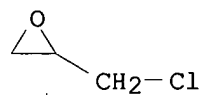
CM 6

CRN 108-78-1  
CMF C3 H6 N6



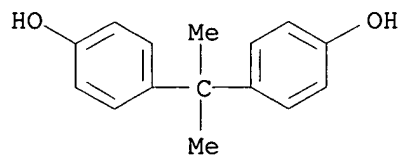
CM 7

CRN 106-89-8  
CMF C3 H5 Cl O



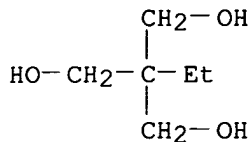
CM 8

CRN 80-05-7  
CMF C15 H16 O2



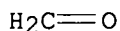
CM 9

CRN 77-99-6  
CMF C6 H14 O3



CM 10

CRN 50-00-0  
CMF C H2 O

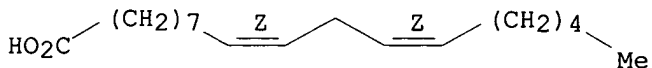


RN 149369-00-6 HCAPLUS  
CN Hexanedioic acid, polymer with (chloromethyl)oxirane, 1,3-dihydro-1,3-dioxo-5-isobenzofurancarboxylic acid, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, formaldehyde, 4,4'-(1-methylethylidene)bis[phenol] and 1,3,5-triazine-2,4,6-triamine, (Z,Z)-9,12-octadecadienoate (ester) (9CI) (CA INDEX NAME)

CM 1

CRN 60-33-3  
CMF C18 H32 O2

Double bond geometry as shown.



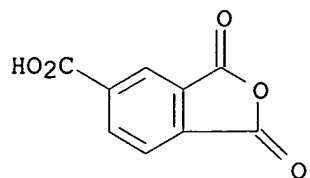
CM 2

CRN 163418-53-9  
CMF (C15 H16 O2 . C9 H4 O5 . C6 H14 O3 . C6 H10 O4 . C5 H12 O2 . C3 H6 N6 . C3 H5 Cl O . C H2 O)x  
CCI PMS

CM 3

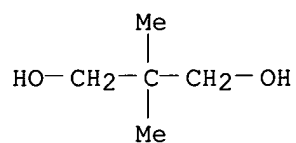
CRN 552-30-7  
CMF C9 H4 O5





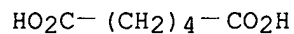
CM 4

CRN 126-30-7  
CMF C5 H12 O2



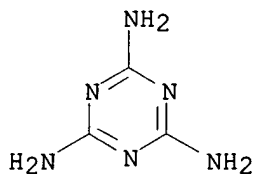
CM 5

CRN 124-04-9  
CMF C6 H10 O4



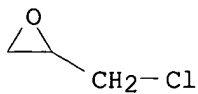
CM 6

CRN 108-78-1  
CMF C3 H6 N6



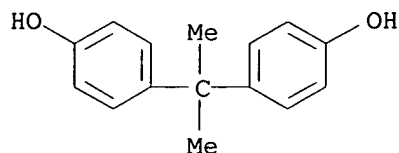
CM 7

CRN 106-89-8  
CMF C3 H5 Cl O



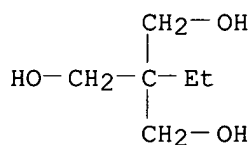
CM 8

CRN 80-05-7  
CMF C15 H16 O2



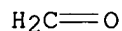
CM 9

CRN 77-99-6  
CMF C6 H14 O3



CM 10

CRN 50-00-0  
CMF C H2 O



L76 ANSWER 19 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1991:658415 HCAPLUS  
DN 115:258415  
ED Entered STN: 14 Dec 1991  
TI Topcoat compositions for automobiles  
IN Enokida, Yutaka; Tsunoda, Takeshi; Nakamichi, Toshihiko  
PA Nippon Oil and Fats Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM C09D167-02  
ICI C09D167-02, C09D161-20  
CC 42-10 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 35  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 03126778	A2	19910529	JP 1989-265961	19891012

PRAI JP 1989-265961

19891012

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

JP 03126778 ICM C09D167-02  
ICI C09D167-02, C09D161-20

AB The title compns. comprise polyesters with acid value <30 mg KOH/g, OH value 30-200 mg KOH/g, surface tension 33-39 dyne/cm, and softening point 5-45° and melamine resins at mix ratio 60:40 - 90:10. Thus, a bonderized steel sheet with a 20 µm electrophoretic coat and a 30 µm intermediate coat was coated with a mixture of adipic acid-isophthalic acid-neopentyl glycol-trimethylolpropane copolymer isononanoate (OH value 120, acid value 9.6, surface tension 36.1 dyne/cm, and softening point 36°) 42.0, TiO<sub>2</sub> 29.0, U-Van 20S 18.0, Modaflow 0.5, Solvesso 100 8.5, and BuOH 2.0 parts to 30 µm thickness and baked at 140°. The coated specimen with good appearance showed no change when immersed in H<sub>2</sub>O at 40° for 240 h, pencil hardness F, good recoatability, and good flexibility while controls containing polyesters with off-specification properties or containing polyesters and melamine resins at off-specification ratios showed degradation in some of the properties.

ST polyester melamine topcoat automobile

IT Epoxides

RL: USES (Uses)

(C12-14-alkyl, polymers, with diacids and diols and melamine resins, topcoats for automobiles, AOEX-24)

IT Coating materials

(topcoats, blends of polyesters and melamine resins, for automobiles)

IT 77-99-6DP, Trimethylolpropane, polymers with adipic acid and AOEX 24 and isophthalic acid and trimethylolpropane and U-Van 20S 121-91-5DP, 1,3-Benzenedicarboxylic acid, polymers with adipic acid and AOEX 24 and neopentyl glycol and trimethylpropane and U-Van 20S 124-04-9DP, Hexanedioic acid, polymers with AOEX 24 and isophthalic acid and neopentyl glycol and trimethylolpropane and U-Van 20S 126-30-7DP, Neopentyl glycol, polymers with adipic acid and AOEX 24 and isophthalic acid and trimethylolpropane and U-Van 20S 137223-61-1P 137621-67-1P 137621-68-2P 137621-69-3P

RL: PREP (Preparation)

(preparation of, topcoats for automobiles)

IT 137223-61-1P

RL: PREP (Preparation)

(preparation of, topcoats for automobiles)

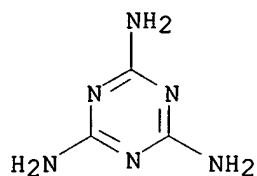
RN 137223-61-1 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and hexanedioic acid, dodecanoate, polymer with formaldehyde and 1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)

CM 1

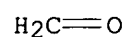
CRN 108-78-1

CMF C3 H6 N6



CM 2

CRN 50-00-0  
CMF C H2 O

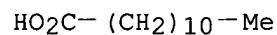


CM 3

CRN 127646-43-9  
CMF C12 H24 O2 . x (C8 H6 O4 . C6 H14 O3 . C6 H10 O4 . C5 H12 O2)x

CM 4

CRN 143-07-7  
CMF C12 H24 O2

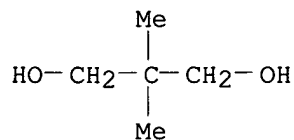


CM 5

CRN 25950-34-9  
CMF (C8 H6 O4 . C6 H14 O3 . C6 H10 O4 . C5 H12 O2)x  
CCI PMS

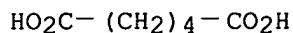
CM 6

CRN 126-30-7  
CMF C5 H12 O2



CM 7

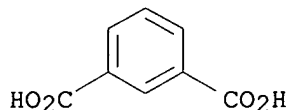
CRN 124-04-9  
CMF C6 H10 O4



CM 8

CRN 121-91-5

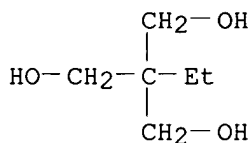
CMF C8 H6 O4



CM 9

CRN 77-99-6

CMF C6 H14 O3



L76 ANSWER 20 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1991:610299 HCAPLUS  
 DN 115:210299  
 ED Entered STN: 15 Nov 1991  
 TI Aqueous dispersions of crosslinked polymer microparticles for use in coatings  
 IN Hille, Hans Dieter; Massone, Matthias  
 PA Bollig und Kemper K.-G., Germany  
 SO Ger. Offen., 9 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 IC ICM C08J003-03  
 ICS C08L067-02; C08L075-04; C08L033-14; C08L061-20; C09D005-02; C09D167-02; C09D175-04; C09D133-14; C09D005-38  
 ICI C09D167-02, C09D161-20; C09D175-04, C09D161-20; C09D133-14, C09D161-20  
 CC 42-7 (Coatings, Inks, and Related Products)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3940316	A1	19910613	DE 1989-3940316	19891206
	CA 2070807	AA	19910607	CA 1990-2070807	19901204
	CA 2070807	C	20010227		
	WO 9108269	A1	19910613	WO 1990-EP2096	19901204
	W: AU, BR, CA, FI, KR, NO, SU, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				

AU 9168943	A1	19910626	AU 1991-68943	19901204
AU 652729	B2	19940908		
BR 9007898	A	19920915	BR 1990-7898	19901204
EP 502934	A1	19920916	EP 1991-900211	19901204
EP 502934	B1	19941102		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE				
ES 2064076	T3	19950116	ES 1991-900211	19901204
RU 2104290	C1	19980210	RU 1990-5052553	19901204
NO 9202228	A	19920730	NO 1992-2228	19920605
US 5412023	A	19950502	US 1992-910080	19920710
PRAI DE 1989-3940316	A	19891206		
WO 1990-EP2096	A	19901204		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 3940316	ICM	C08J003-03
	ICS	C08L067-02; C08L075-04; C08L033-14; C08L061-20; C09D005-02; C09D167-02; C09D175-04; C09D133-14; C09D005-38
	ICI	C09D167-02, C09D161-20; C09D175-04, C09D161-20; C09D133-14, C09D161-20

AB The title dispersions are prepared by heating polyester, polyurethane, or polyacrylate polyols (acid number 5-268) bearing sufficient ionic groups to form stable aqueous dispersions, optionally dissolved in organic solvents, with reactive aminoplasts in aqueous media. Adding 687.5 parts 5% aqueous

Me2NCH2CH2OH

over 10 min to 1050 parts 77% MIBK solution of a polyester (acid number 34) prepared from trimethylolpropane 670, 1,6-hexanediol 354, isomerized soya acids 1400, phthalic anhydride 592, and trimellitic anhydride 384 parts and 495 parts BuOH solution of melamine resin stirred at 40-48°, adding 1457.5 parts H2O over 15 min at 48-68°, heating at 85° for 3 h, neutralizing with Me2NCH2CH2OH, and distilling MIBK gave a 34% resin dispersion with pH 8.37 and DIN viscosity 21 s. A mixture of this composition, an acrylic polymer thickener, and nonleafing Al bronze was sprayed on steel, dried at 50°, topcoated with a polyacrylate-melamine resin composition, and baked at 130° to give a metal-effect coating.

ST metal effect coating binder; binder coating microparticle emulsion; polyester crosslinked emulsion coating; melamine resin crosslinker coating; emulsion polymer microparticle coating

IT Crosslinking agents

(melamine resin, for polyester microparticle emulsions for coatings)

IT Coating materials

(metal-effect, water-thinned, crosslinked polyester microparticle emulsions for use in)

IT Fatty acids, compounds

RL: USES (Uses)

(polyunsatd., conjugated, maleated, polymers with polyols and dicarboxylic acids, for crosslinked microparticle emulsions for coatings)

IT Fatty acids, esters

RL: USES (Uses)

(soya, esters, with alkyd resins, in microparticle emulsions for use in coatings)

IT 108-31-6D, 2,5-Furandione, reaction products with unsatd. fatty acids, polymers with hexanediol, isophthalic acid and trimellitic anhydride, reaction products with melamine resins 121-91-5D, 1,3-Benzenedicarboxylic acid, polymers with hexanediol, trimellitic anhydride and maleated unsatd. fatty acids, reaction products with melamine resins 552-30-7D, polymers with hexanediol, isophthalic acid and maleated unsatd.

fatty acids, reaction products with melamine resins 629-11-8D,  
1,6-Hexanediol, polymers with isophthalic acid, trimellitic anhydride and  
maleated unsatd. fatty acids, reaction products with melamine resins  
**9003-08-1D**, Formaldehyde-melamine **copolymer**, reaction  
products with maleated **fatty acid**-based polyesters  
136837-45-1 136837-47-3D, esters with isomerized soya fatty acids  
136837-48-4

RL: USES (Uses)

(crosslinked microparticle emulsions, for use in coatings)

IT 136894-87-6P

RL: **PREP (Preparation)**

(manufacture of, for crosslinked microparticle emulsions for coatings)

IT **9003-08-1D**, Formaldehyde-melamine **copolymer**, reaction  
products with maleated **fatty acid**-based polyesters

RL: USES (Uses)

(crosslinked microparticle emulsions, for use in coatings)

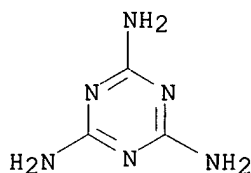
RN 9003-08-1 HCAPLUS

CN 1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde (9CI) (CA INDEX  
NAME)

CM 1

CRN 108-78-1

CMF C3 H6 N6



CM 2

CRN 50-00-0

CMF C H2 O

H<sub>2</sub>C=O

L76 ANSWER 21 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1990:613128 HCAPLUS

DN 113:213128

ED Entered STN: 08 Dec 1990

TI Polymeric resins from renewable resources. II. Synthesis and  
characterization of flame-retardant prepolymers from cardanol

AU Pillai, C. K. S.; Prasad, V. S.; Sudha, J. D.; Bera, S. C.; Menon, A. R.  
R.

CS Reg. Res. Lab., CSIR, Trivandrum, 695019, India

SO Journal of Applied Polymer Science (1990), 41(9-10), 2487-501

CODEN: JAPNAB; ISSN: 0021-8995

DT Journal

LA English

CC 37-3 (Plastics Manufacture and Processing)

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

AB Phosphorylated cardanol (I) prepolymers (II) were obtained by simultaneous phosphorylation and oligomerization of I, an unsatd. pentadecylphenol extracted from the nuts of the plant *Anacardium occidentale*. Although gel permeation chromatog. showed the presence of only oligomeric species in the system, the high viscosity of (0.35-0.45) + 106 cps was due to involvement of H bonding. IR spectra of II gave bands at 1030 cm<sup>-1</sup> and 1240 cm<sup>-1</sup>, indicating P-O-C linkages. The decrease in iodine value and the absence of vinyl IR bands at 895 cm<sup>-1</sup> and 907 cm<sup>-1</sup> indicated oligomerization. NMR spectra of II showed partial loss of unsatn. A carbonium ion-initiated mechanism is indicated for the oligomerization. II was highly reactive with aldehydes, amines, and isocyanates. Highly insol. and infusible thermoset products could be obtained. TGA studies showed a 2-stage decomposition with improved thermal stability above 500° for II compared to I-HCHO (novolac-type) resin (III). II cured with hexamethylenetetramine (IV) had tensile strength of 16.9-21.5 MN/m<sup>2</sup> and impact strength of 1.63-2.04 J compared to 24-48 MN/m<sup>2</sup> and 1.35 J, resp., for phenol-HCHO resin prepared under similar conditions. The lap shear strength of II-bonded wood pieces was 400 ± 10 N/cm<sup>2</sup> compared to 60 ± 10 N/cm<sup>2</sup> for III, indicating that phosphorylation improves bonding characteristics. With a P content of 7.9%, II showed good fire-retardant properties. Vertical burning studies showed no propagation of fire or any afterglow. IV-cured II had a limiting O-index value of 35, which increased to 42.0 on bromination.

ST cardanol phosphorylation oligomerization mechanism; crosslinked cardanol polymer fire resistance

IT Cashew

(nutshell liquid, phosphorylated, crosslinked polymers containing, preparation and fire resistance of)

IT Phosphorylation, synthetic  
(of cardanol, with orthophosphoric acid, with simultaneous oligomerization, mechanism of)

IT Adhesives  
(phosphorylated cardanol homopolymers, for wood)

IT Heat-resistant materials  
(phosphorylated cardanol-containing crosslinked polymers)

IT Fire-resistant materials  
(phosphorylated cardanol-containing crosslinked polymers, bromination effect on)

IT Phenolic resins, compounds  
RL: PEP (Physical, engineering or chemical process); PROC (Process)  
(cardanol-based, phosphorylated, preparation and crosslinking of)

IT Polymerization  
(oligomerization, of cardanol, with simultaneous phosphorylation, mechanism of)

IT Phenolic resins, preparation  
Urethane polymers, preparation  
RL: **SPN (Synthetic preparation); PREP (Preparation)**  
(phosphorylated cardanol-based, preparation and fire resistance of crosslinked)

IT 37330-39-5, Cardanol  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(oligomerization of, with simultaneous phosphorylation, mechanism of)

IT 7664-38-2, Phosphoric acid, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(phosphorylation by, in simultaneous cardanol oligomerization, mechanism of)

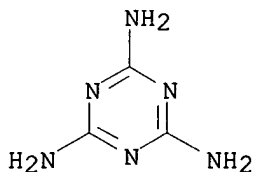
IT 130285-13-1DP, Cardanol homopolymer, phosphorylated  
RL: RCT (Reactant); **SPN (Synthetic preparation); PREP**



(Preparation); RACT (Reactant or reagent)  
 (preparation and characterization and crosslinking of)  
 IT 37311-73-2DP, Cardanol-formaldehyde copolymer, phosphorylated  
 125433-24-1DP, phosphorylated 130572-33-7DP, phosphorylated  
 130572-34-8DP, phosphorylated  
 RL: PEP (Physical, engineering or chemical process); SPN (Synthetic  
 preparation); PREP (Preparation); PROC (Process)  
 (preparation and characterization of)  
 IT 37311-73-2P, Cardanol-formaldehyde copolymer  
 RL: PEP (Physical, engineering or chemical process); SPN (Synthetic  
 preparation); PREP (Preparation); PROC (Process)  
 (preparation and crosslinking of)  
 IT 9062-06-0DP, phosphorylated, brominated 130572-32-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and fire resistance of)  
 IT 130572-34-8DP, phosphorylated  
 RL: PEP (Physical, engineering or chemical process); SPN (Synthetic  
 preparation); PREP (Preparation); PROC (Process)  
 (preparation and characterization of)  
 RN 130572-34-8 HCAPLUS  
 CN 1,3,5-Triazine-2,4,6-triamine, polymer with Cardanol (9CI) (CA INDEX  
 NAME)  
 CM 1  
 CRN 37330-39-5  
 CMF Unspecified  
 CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2  
 CRN 108-78-1  
 CMF C3 H6 N6



L76 ANSWER 22 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1990:236973 HCAPLUS  
 DN 112:236973  
 ED Entered STN: 23 Jun 1990  
 TI High-solids acrylic-polyester coatings containing hydroxy ester reactive  
 diluents  
 IN Toman, Perry A.  
 PA Glidden Co., USA  
 SO U.S., 8 pp. Cont.-in-part of U.S. 4,182,523.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 IC ICM C08L063-00

NCL 525107000

CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4877838	A	19891031	US 1988-289257	19881223
	US 4812523	A	19890314	US 1988-147440	19880125
PRAI	US 1988-147440		19880125		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 4877838	ICM	C08L063-00
	NCL	525107000

AB Reaction products of epoxides and carboxylic acids are useful as reactive diluents for aminoplast- or glycoluril-crosslinked, high-solids coatings containing hydroxy acrylic polymers and hydroxy polyesters. Thus, a composition

containing 40:20:2.6:37.6 Bu acrylate-2-hydroxyethyl acrylate-methacrylic acid-styrene copolymer 21.1, BuOAc 16.81, TiO<sub>2</sub> 100, 26.45:30.06:54.79:1.5 adipic acid-isophthalic acid-neopentyl glycol-trimethylolpropane copolymer 22.86, 379.6:206.4 Cardura E-dodecenylsuccinic anhydride reaction product (I, acid number 3.8) 16.06, Cymel 303 crosslinker 35, thixotropic gel 10.26, surfactant 0.55, ethylene glycol mono-Bu ether acetate 0.55, BuOH 5.6, and dinonylnaphthalene sulfonic acid 1 g exhibited lower viscosity and similar film properties in salt spray, water fog, and accelerated weathering tests, compared with a similar composition not containing I.

ST hydroxy ester reactive diluent coating; high solids acrylic polyester coating; epoxide carboxlate reactive diluent coating; dodecenyl succinate epoxide reactive diluent coating; aminoplast crosslinked acrylic polyester coating; glycoluril crosslinked acrylic polyester coating; styrene acrylic polyester coating; acrylate copolymer polyester coating; hydroxyethyl acrylate copolymer polyester coating; methacrylic polyester coating; polyisophthalate acrylic high solids coating; polyadipate acrylic high solids coating; neopentyl glycol polyester acrylic coating; trimethylolpropane polyester acrylic coating

IT Fatty acids, polymers

RL: PROC (Process)

(C18-unsatd., dimers, reaction products, with epoxides, manufacture of, for reactive diluents for high-solids hydroxy group-containing acrylic-polyester coatings)

IT Fatty acids, esters

RL: USES (Uses)

(C9-11-branched, esters, with glycidol, reaction products with dodecenyl succinic anhydride, manufacture of, for reactive diluents for high-solids hydroxy group-containing acrylic-polyester coatings)

IT Coating materials

(high-solids, acrylic-polyester, containing hydroxy ester reactive diluents and amino crosslinking agents)

IT Fatty acids, polymers

RL: PROC (Process)

(unsatd., dimers, reaction products, with epoxides, manufacture of, for reactive diluents for high-solids hydroxy group-containing acrylic-polyester coatings)

IT 25950-34-9, Adipic acid-isophthalic acid-neopentyl glycol-trimethylolpropane copolymer

RL: TEM (Technical or engineered material use); USES (Uses)

(coatings, high-solids, containing hydroxy group-containing acrylic polymers and hydroxy ester reactive diluents and amino crosslinking agents)

IT 27553-55-5, Butyl acrylate-2-hydroxyethyl methacrylate-methacrylic

acid-styrene copolymer  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (coatings, high-solids, containing polyesters and hydroxy ester reactive  
 diluents and amino crosslinking agents)

IT 127211-00-1P 127211-01-2P 127331-32-2P **127483-38-9P**  
 RL: TEM (Technical or engineered material use); **PREP (Preparation)**  
 ; USES (Uses)  
 (coatings, high-solids, manufacture of)

IT 75-56-9, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (esterification by, of dodecenyl succinic anhydride)

IT 143-07-7, Lauric acid, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (esterification of, by diglycidyl dimethylmethyleneglutarate)

IT 17557-23-2  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (esterification of, by lauric acid)

IT 25377-73-5, Dodecenylsuccinic anhydride  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (esterification of, by propylene oxide)

IT 75-56-9DP, esters with fatty acid dimers 9058-77-9P  
 RL: PREP (Preparation)  
 (manufacture of, for high-solids hydroxy group-containing acrylic-polyester  
 coatings)

IT 9080-23-3DP, Empol 1018, reaction product with glycidyl neodecanoate  
 25377-73-5DP, Dodecenylsuccinic anhydride, reaction products with glycidyl  
 esters of branched fatty acids 26761-45-5DP, Cardura E-10, reaction  
 products with fatty acid dimers and trimers 59111-86-3P, Bisphenol  
 A-epichlorohydrin copolymer laurate 59978-87-9P 127176-35-6P  
 127210-99-5P 127289-36-5P 127289-55-8P 127289-99-0P 127290-22-6DP,  
 Pripol 1009, reaction product with glycidyl neodecanoate 127304-09-0P  
 RL: PREP (Preparation)  
 (manufacture of, for reactive diluents for high-solids hydroxy  
 group-containing  
 acrylic-polyester coatings)

IT 26761-45-5, Cardura E-10  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with diacids and hydroxy acids)

IT 106-14-9 123-99-9, Nonanedioic acid, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with glycidyl neodecanoate)

IT 100639-41-6, Diglycidyl 2,2-dimethyl-4-methylene glutarate  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with lauric acid)

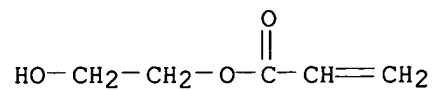
IT **127483-38-9P**  
 RL: TEM (Technical or engineered material use); **PREP (Preparation)**  
 ; USES (Uses)  
 (coatings, high-solids, manufacture of)

RN ~~127483-38-9~~ HCAPLUS  
 CN 1,3-Benzenedicarboxylic acid, polymer with bis(oxiranylmethyl)  
 2,2-dimethyl-4-methylenepentanedioate homopolymer dodecanoate, butyl  
 2-propenoate, 2,2-dimethyl-1,3-propanediol, ethenylbenzene,  
 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, formaldehyde, hexanedioic acid,  
 2-hydroxyethyl 2-propenoate, 2-methyl-2-propenoic acid and  
 1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)

CM 1

CRN 818-61-1

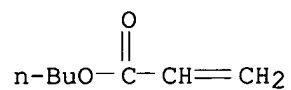
CMF C5 H8 O3



CM 2

CRN 141-32-2

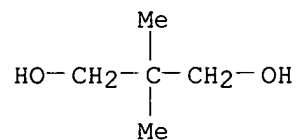
CMF C7 H12 O2



CM 3

CRN 126-30-7

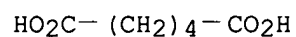
CMF C5 H12 O2



CM 4

CRN 124-04-9

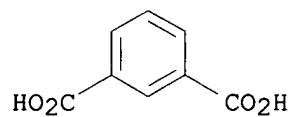
CMF C6 H10 O4



CM 5

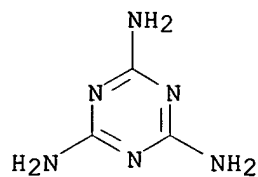
CRN 121-91-5

CMF C8 H6 O4



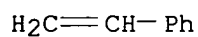
CM 6

CRN 108-78-1  
CMF C3 H6 N6



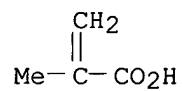
CM 7

CRN 100-42-5  
CMF C8 H8



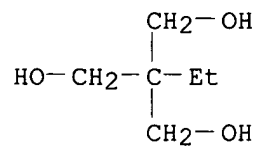
CM 8

CRN 79-41-4  
CMF C4 H6 O2



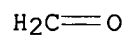
CM 9

CRN 77-99-6  
CMF C6 H14 O3



CM 10

CRN 50-00-0  
CMF C H2 O



CM 11

CRN 127289-55-8

CMF (C14 H20 O6)x . x C12 H24 O2

CM 12

CRN 143-07-7

CMF C12 H24 O2

HO<sub>2</sub>C- (CH<sub>2</sub>)<sub>10</sub>-Me

CM 13

CRN 199542-57-9

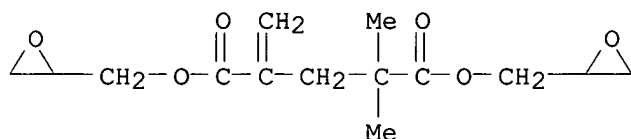
CMF (C14 H20 O6)x

CCI PMS

CM 14

CRN 100639-41-6

CMF C14 H20 O6



L76 ANSWER 23 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1988:512199 HCAPLUS

DN 109:112199

ED Entered STN: 01 Oct 1988

TI Formation of chip-resistant coatings

IN Kasari, Akira; Iwase, Osamu; Osumimoto, Hiroshi; Udagawa, Takashi; Fujii, Yasuhiro

PA Kansai Paint Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B05D007-14

ICS B05D003-02; B05D005-00; B05D007-24

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 55

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 63080884	A2	19880411	JP 1986-225360	19860924
	JP 2512907	B2	19960703		
PRAI	JP 1986-225360		19860924		
CLASS					

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 63080884	ICM ICS	B05D007-14 B05D003-02; B05D005-00; B05D007-24
AB	<p>Chip-resistant coatings are manufactured by forming a middle coat having tensile breaking elongation &gt;10% and strength at break &gt;20 kg/cm<sup>2</sup> with a thermosetting organic solution-type polyester resin, adjusting the viscosity of the above polyester resin to 5-500 P (20°) after coating and before curing, forming a topcoating having tensile breaking elongation &lt;40% and strength at break &gt;100 kg/cm<sup>2</sup> with thermosetting coating material having equal or smaller surface tension than that for the above polyester. Compared with the above polyester coating, the topcoats has a smaller tensile break strength elongation (absolute value &gt;5) and a larger strength at breaking (≥80 kg/cm<sup>2</sup>). Thus, phosphated steel was primed with Elecron 9200 (an epoxy polyamide cationic electrodeposition coating), coated with a second coat containing a short soybean oil-modified alkyd resin, a melamine resin, Ti white, and baryta, coated with barrier coat having elongation 60%, strength at break 100 kg/cm<sup>2</sup>, and surface tension 32.0 and containing hexahydrophthalic acid-adipic acid-trimethylolpropane-1,6-hexanediol copolymer, U-Van 20SE-60, and pigments, topcoated with metallic coating having elongation 20%, strength at break 300 kg/cm<sup>2</sup>, and surface tension 30.8 and containing styrene-Et methacrylate-Bu methacrylate-hydroxyethyl methacrylate-acrylic acid copolymer, U-Van 20 SE-60, and pigments, and coated with clear coat containing acrylic resins and U-Van 20SE-760.</p>	
ST	<p>chip resistant multilayer coating; alkyd resin soybean modified coating; metallic acrylic topcoat chip resistant; polyhexahydrophthalate coating chip resistant; polyadipate coating chip resistant; trimethylolpropane polyester coating chip resistant; hexanediol polyester coating chip resistant; styrene acrylic coating chip resistant; methacrylate copolymer coating chip resistant</p>	
IT	<p>Coating materials (chip-resistant, multilayer, acrylic-polyester, on steel)</p>	
IT	<p>Fatty acids, esters RL: USES (Uses) (coco, esters, with polyesters, chip-resistant multilayer coatings containing melamine resins and, on steel)</p>	
IT	<p>Fatty acids, esters RL: USES (Uses) (soya, alkyd resins, chip-resistant multilayer coatings containing melamine resins and, on steel)</p>	
IT	<p>Fatty acids, esters RL: USES (Uses) (tall-oil, esters, with polyesters, chip-resistant multilayer coatings containing melamine resins and, on steel)</p>	
IT	<p>85-44-9D, Phthalic anhydride, alkyd resin derivs., soybean-oil-modified 100-21-0D, Terephthalic acid, alkyd resin derivs., soybean-oil-modified RL: USES (Uses) (chip-resistant multilayer coatings containing melamine resins and, for steel)</p>	
IT	<p>12597-69-2 RL: MSC (Miscellaneous) (coating materials, chip-resistant, multilayer, acrylic-polyester, on steel)</p>	
IT	<p>116363-10-1P RL: <b>PREP (Preparation)</b> (manufacture of, as clear toplayer in chip-resistant coatings on steel)</p>	
IT	<p>110871-08-4P, Acrylic acid-butyl methacrylate-ethyl methacrylate-hydroxyethyl methacrylate-styrene-U-Van 20SE60 copolymer 116322-54-4P,</p>	

Adipic acid-1,6-hexanediol-hexahydrophthalic acid-trimethylolpropane-U-Van 20SE60 copolymer **116322-55-5DP**, Adipic acid-1,6-hexanediol-hexahydrophthalic acid-neopentyl glycol-trimethylolpropane-U-Van 20SE 60 **copolymer**, coconut-oil **fatty acid**-modified 116322-56-6P, Adipic acid-1,3-Butanediol-1,6-Hexanediol-sebacic acid-trimethylolpropane-U-Van 20SE60 copolymer

RL: **PREP (Preparation)**

(manufacture of, as intermediate layer in chip-resistant coatings, for steel)

IT 116334-57-7P

RL: **PREP (Preparation)**

(manufacture of, as intermediate metallic layer in chip-resistant coatings, for steel)

IT 116322-57-7DP, coconut oil fatty acid-modified 116322-58-8P

RL: **PREP (Preparation)**

(manufacture of, as pigmented intermediate layer in chip-resistant coatings on steel)

IT **116322-55-5DP**, Adipic acid-1,6-hexanediol-hexahydrophthalic acid-neopentyl glycol-trimethylolpropane-U-Van 20SE 60 **copolymer**, coconut-oil **fatty acid**-modified

RL: **PREP (Preparation)**

(manufacture of, as intermediate layer in chip-resistant coatings, for steel)

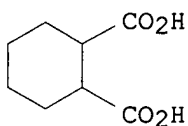
RN 116322-55-5 HCAPLUS

CN 1,2-Cyclohexanedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, formaldehyde, hexanedioic acid, 1,6-hexanediol and 1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)

CM 1

CRN 1687-30-5

CMF C8 H12 O4



CM 2

CRN 629-11-8

CMF C6 H14 O2

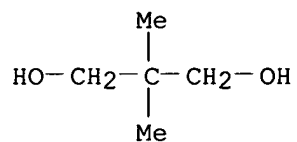
HO-(CH<sub>2</sub>)<sub>6</sub>-OH

CM 3

CRN 126-30-7

CMF C5 H12 O2

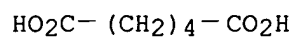




CM 4

CRN 124-04-9

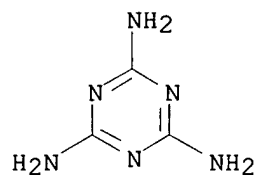
CMF C6 H10 O4



CM 5

CRN 108-78-1

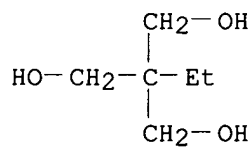
CMF C3 H6 N6



CM 6

CRN 77-99-6

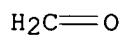
CMF C6 H14 O3



CM 7

CRN 50-00-0

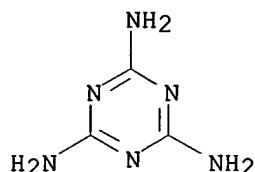
CMF C H2 O



DN 106:158012  
 ED Entered STN: 15 May 1987  
 TI Synthesis and some properties of oligo(amino esters)  
 AU Mikhailova, T. B.; Semina, R. A.; Klygina, R. V.; Livshits, R. M.  
 CS GIPI LKP, Moscow, USSR  
 SO Lakokrasochnye Materialy i Ikh Primenenie (1987), (1), 8-9  
 CODEN: LAMAAD; ISSN: 0023-737X  
 DT Journal  
 LA Russian  
 CC 42-10 (Coatings, Inks, and Related Products)  
 AB A melamine-HCHO oligomer (GM-3) [9003-08-1], was modified with tall-oil fatty acids and adipic acid [124-04-9] at 200° to give film formers having number-average mol. weight 2100-2600. The prepared film formers gave cured coatings having better hardness, gloss, and color than the coatings prepared from their alkyd analogs. The best results were achieved at GM-3-(tall-oil fatty acids)-adipic acid mol ratio 1:2:0.5. A model study using stearic acid [57-11-4] instead of tall-oil fatty acids revealed that there was no polycondensation of GM-3 in the absence of adipic acid, but this reaction occurred in its presence.  
 ST aminoplast fatty acid modification coating; melamine resin fatty acid modification; adipic acid modification melamine resin; tall oil acid modification aminoplast  
 IT Coating materials  
 (melamine resins modified with adipic and tall-oil fatty acids, preparation and properties of)  
 IT Crosslinking  
 (of melamine resin coatings modified with adipic and tall-oil fatty acids)  
 IT Fatty acids, compounds  
 RL: **SPN (Synthetic preparation); PREP (Preparation)**  
 (tall-oil, reaction products with adipic acid and melamine resins, coatings, preparation properties of)  
 IT 124-04-9DP, reaction products with melamine resins and tall-oil fatty acids **9003-08-1DP**, Melamine-formaldehyde **copolymer**, reaction products with adipic and tall-oil **fatty acids**  
 RL: **SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)**  
 (coatings, preparation and properties of)  
 IT 9003-08-1, Melamine-formaldehyde copolymer  
 RL: USES (Uses)  
 (oligomeric, N-isolation of GM3, with carboxylic acids)  
 IT 124-04-9, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (N-isolation of melamine resins with tall-oil fatty acids and)  
 IT 57-11-4, Stearic acid, uses and miscellaneous  
 RL: USES (Uses)  
 (N-isolation with, of melamine resins)  
 IT **9003-08-1DP**, Melamine-formaldehyde **copolymer**, reaction products with adipic and tall-oil **fatty acids**  
 RL: **SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)**  
 (coatings, preparation and properties of)  
 RN 9003-08-1 HCAPLUS  
 CN 1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde (9CI) (CA INDEX NAME)

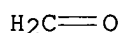
CM 1

CRN 108-78-1  
CMF C3 H6 N6



CM 2

CRN 50-00-0  
CMF C H2 O



L76 ANSWER 25 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1985:613396 HCAPLUS  
DN 103:213396  
ED Entered STN: 28 Dec 1985  
TI Modified lipase  
IN Inada, Yuji  
PA Bellex Corp., Japan  
SO Eur. Pat. Appl., 21 pp.  
CODEN: EPXXDW  
DT Patent  
LA English  
IC ICM C12N009-20  
ICS C12N009-96  
ICA C12P007-64; C12P033-00  
CC 16-4 (Fermentation and Bioindustrial Chemistry)  
Section cross-reference(s): 7

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 149520	A2	19850724	EP 1985-300102	19850107
	EP 149520	A3	19871125		
	EP 149520	B1	19910904		
	R: CH, DE, FR, GB, IT, LI, NL				
	JP 60156395	A2	19850816	JP 1984-6129	19840117
	JP 05036029	B4	19930528		
	US 4645741	A	19870224	US 1984-687635	19841231
PRAI	JP 1984-6129		19840117		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 149520	ICM	C12N009-20
	ICS	C12N009-96
	ICA	C12P007-64; C12P033-00

OS CASREACT 103:213396

AB A chemical modified lipase is prepared which is modified with a straight chain comprising a substituted polyalkylene glycol having a hydrophobic group at

a terminal end. The modified enzyme is soluble in both water and organic solvent, allowing for contact with organic solvents without enzyme deactivation. Thus, lipoprotein lipase [9004-02-8] from *Pseudomonas fluorescens* was reacted with 2,4-bis(methoxypolyoxyethylene)-6-chloro-s-triazine [72708-10-2] at 37° for 1 h. The enzyme was purified by conventional means to obtain a lipase preparation containing 52% of its

NH<sub>2</sub> groups modified with the triazine derivative The modified lipase was added to a benzene [71-43-2] solution containing stearic acid [57-11-4] and lauryl alc. [112-53-8] and the reaction was carried out at 37° for 20 min. Modified lipase exhibited maximum lauryl stearate [5303-25-3] synthesis activity of 4.5 µmol/min/mg protein.

ST lipase polyalkylene glycol modification soly; org solvent soly modified lipase

IT Solvents  
(organic, lipase chemical modified derivative solubility in)

IT 57-11-4, biological studies  
RL: BIOL (Biological study)  
(lauryl stearate preparation from lauryl alc. and, with lipoprotein lipase polyoxyethylenetriazine modified derivative)

IT 112-53-8  
RL: BIOL (Biological study)  
(lauryl stearate preparation from stearate and, with lipoprotein lipase polyoxyethylenetriazine modified derivative)

IT 67-66-3, properties 71-43-2, properties 71-55-6 79-01-6, properties 108-88-3, properties 127-18-4, properties  
RL: PRP (Properties)  
(lipase chemical modified derivative solubility in)

IT 9001-62-1DP, polyalkylene glycol-modified derivs. 9004-02-8DP, derivs. 25322-68-3DP, substituted derivs., reaction products with lipase  
RL: PREP (Preparation)  
(preparation and activity and solubility of)

IT 80506-64-5P 92451-01-9P 99126-66-6P 99126-67-7P 99126-68-8P  
RL: PREP (Preparation)  
(preparation and lipase modification with)

IT 72708-10-2P  
RL: PREP (Preparation)  
(preparation and lipoprotein lipase modification with)

IT 99126-64-4P 99126-65-5P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and reaction with hydrazine hydrate)

IT 67665-19-4P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and reaction with hydroxysuccinimide)

IT 58320-73-3P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and reaction with potassium phthalimide)

IT 86469-86-5P 99126-69-9P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and reaction with sodium nitrite)

IT 106-33-2P  
RL: PREP (Preparation)  
(preparation of, by trilaurin alcoholysis with lipase modified form)

IT 5303-25-3P  
RL: PREP (Preparation)

- (preparation of, from stearate and lauryl alc. with lipoprotein lipase polyoxyethylenetriazine modified derivative)
- IT 41005-65-6P  
RL: **PREP (Preparation)**  
(preparation of, in presence of lipase modified derivative)
- IT 111-82-0P  
RL: **PREP (Preparation)**  
(preparation of, with lipase modified form)
- IT 334-88-3  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with chloroacetic anhydride and monomethoxypolyethylene glycol)
- IT 538-24-9  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with ethanol in presence of lipase modified form)
- IT 83-46-5  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with laurate)
- IT 623-42-7  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with laurate in presence of lipase modified form)
- IT 105-36-2 118-48-9 45669-18-9  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with methoxypolyethylene glycol)
- IT 6066-82-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with methoxypolyethylene glycol acetic acid ether)
- IT 98-59-9  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with methoxypolyethylene glycol and chloroform and pyridine)
- IT 110-86-1, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with methoxypolyethylene glycol and chloroform and tosyl chloride)
- IT 67-66-3, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with methoxypolyethylene glycol and pyridine and tosyl chloride)
- IT 108-77-0  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with monomethoxypolyethylene glycol)
- IT 541-88-8  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with monomethoxypolyethylene glycol and diazomethane)
- IT 9004-02-8  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with polyoxyethylenetriazine derivative, enzyme solubility in relation to)
- IT 143-07-7, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with sitosterol or methylbutyrate)
- IT 99143-92-7  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with tosylated methoxypolyethylene glycol)
- IT 9004-74-4  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with trichlorotriazine)
- IT 64-17-5, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with trilaurin in presence of lipase modified form)

L76 ANSWER 26 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1984:176526 HCAPLUS  
DN 100:176526  
ED Entered STN: 26 May 1984  
TI Water-soluble film-forming products of polymer-analog reactions of vinyl acetate-maleic anhydride copolymer  
AU Smirnov, G. A.; Agafonov, G. I.; Kostyuchenko, G. F.; Smekalova, M. V.; Mil'to, S. P.  
CS Yarosl. Politekh. Inst., Yaroslavl, USSR  
SO Deposited Doc. (1982), SPSTL 599 Khp-D82, 7 pp. Avail.: SPSTL  
DT Report  
LA Russian  
CC 42-10 (Coatings, Inks, and Related Products)  
AB The reaction products of maleic anhydride-vinyl acetate **copolymer** (I) with allyl alc., ethylene glycol monomethacrylate (II), or tall oil **fatty acid** ethylene glycol monoester (FEM) were prepared in the presence of Et3N [121-44-8] and used for H2O-soluble, oil- and gasoline-resistant coatings. FEM-based coatings had higher resistance to H2O and lower hardness than those based on reaction products of I with allyl alc. or II. Coatings with optimum properties were obtained from reaction products of I with FEM at 1:0.8 maleic anhydride-FEM mol ratio crosslinked with 20% melamine-formaldehyde **copolymer** [9003-08-1].  
ST vinyl acetate copolymer coating; maleic anhydride copolymer coating; alc modified vinyl acetate copolymer  
IT Crosslinking agents  
(melamine resins, for maleic anhydride-vinyl acetate copolymer reaction products with hydroxy-containing compds., for coatings)  
IT Esterification catalysts  
(triethylamine, for maleic anhydride copolymers with hydroxy-containing compds.)  
IT Coating materials  
(vinyl acetate polymer-based, alc.-modified, preparation and properties of)  
IT Fatty acids, esters  
RL: **SPN (Synthetic preparation); PREP (Preparation)**  
(tall-oil, esters with ethylene glycol, reaction products with maleic anhydride-vinyl acetate copolymer, preparation and coating properties of)  
IT 121-44-8, uses and miscellaneous  
RL: CAT (Catalyst use); USES (Uses)  
(catalysts, for maleic anhydride copolymer esterification with hydroxy-containing compds.)  
IT 9003-08-1  
RL: USES (Uses)  
(crosslinking with, of maleic anhydride-vinyl acetate copolymer reaction product with hydroxy-containing compds., for coatings)  
IT 107-18-6D, reaction products with maleic anhydride-vinyl acetate copolymer 107-21-1D, esters with tall oil fatty acids, reaction products with maleic acid-vinyl acetate copolymer 868-77-9D, reaction products with maleic anhydride-vinyl acetate copolymer 9011-07-8D, reaction product with hydroxy-containing compds.  
RL: USES (Uses)  
(water-soluble preparation and coating properties of)

L76 ANSWER 27 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1980:640560 HCAPLUS  
DN 93:240560

ED Entered STN: 12 May 1984  
 TI Polymeric polyamino-1,3,5-triazines containing at least one  
 polyalkylpiperidine group and their use in stabilizing an organic material  
 IN Nikles, Erwin  
 PA Ciba-Geigy A.-G., Switz.  
 SO Eur. Pat. Appl., 49 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA German  
 IC C08G073-06; C08G073-02  
 CC 36-6 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 27

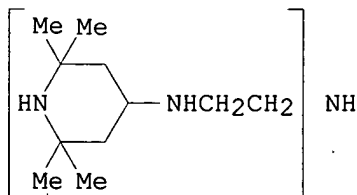
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 13665	A1	19800723	EP 1980-810008	19800109
	EP 13665	B1	19830629		
	R: BE, CH, DE, FR, GB, IT, NL				
	US 4315859	A	19820216	US 1980-109733	19800104
	EP 61785	A1	19821006	EP 1982-104017	19800109
	EP 61785	B1	19850220		
	EP 61785	B2	19880316		
	R: BE, CH, DE, FR, GB, IT, NL				
	JP 55098180	A2	19800725	JP 1980-3451	19800116
	US 4528374	A	19850709	US 1981-319352	19811109
PRAI	CH 1979-357		19790115		
	US 1980-109733		19800104		
	EP 1980-810008		19800109		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 13665	IC	C08G073-06IC C08G073-02

GI



AB 1,7-Bis(2,2,6,6-tetramethyl-4-piperidyl)-1,4,7-triazaheptane (I) [68617-75-4], 1,10-bis(2,2,6,6-tetramethyl-4-piperidyl)-1,4,7,10-tetraazadecane [75577-94-5], 1-(2,2,6,6-tetramethyl-4-piperidyl)-1,4,7-triazaheptane [75578-13-1], 1-cyclohexyl-7-(2,2,6,6-tetramethyl-4-piperidyl)-1,4,7-triazaheptane [75578-18-6], and 12 similar compds. are prepared. The compds. are **copolymd.** with cyanuric chloride (II), 2-amino-4,6-dichloro-s-triazine (III), 2,4-dichloro-6-(dimethylamino)-s-triazine, or another dichlorotriazine derivative or **copolymd.** with II (i.e., to give a Cl-substituted **copolymer**) and treated with an amine, diamine, mercaptan, alc., KCN, NaN<sub>3</sub>, Ac<sub>2</sub>O, BzCl, or a similar compound to prepare polymers which are useful as stabilizers for organic materials such as polyolefins and as hardeners for epoxy resins. Thus,

- triacetoneamine [826-36-8] and diethylenetriamine [111-40-0] were used to prepare I which was **copolymd.** with III. The **copolymer** [75578-39-1] (mol. weight 2140) was used (0.3%) as a stabilizer in polypropene fibers. The fibers lost 50% of their strength during 3500 h in UV light, compared with 420 h for unstabilized fibers.
- ST amine polymer light stabilizer; triazine polymer crosslinking agent; piperidine triazine polymer; crosslinker epoxy amine polymer; polypropylene fiber light stabilization
- IT Epoxy resins, uses and miscellaneous  
 RL: USES (Uses)  
 (hardeners for, polyamines containing tetramethylpiperidyl and triazinyl groups as)
- IT Polypropene fibers, uses and miscellaneous  
 RL: USES (Uses)  
 (light stabilizers for, tetramethylpiperidylamino and triazinyl group-containing polymers as)
- IT Light stabilizers  
 (tetramethylpiperidylamino and triazinyl group-containing polymers)
- IT Crosslinking agents  
 (tetramethylpiperidylamino and triazinyl group-containing polymers, for epoxy resins)
- IT Polymerization  
 (condensation, of diamines containing tetramethylpiperidyl groups with dichlorotriazines)
- IT 109-73-9DP, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 765-30-0DP, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers  
 75577-95-6P 75577-96-7P 75577-97-8P 75577-98-9P 75577-99-0P  
 75578-00-6P 75578-01-7P 75578-02-8P 75578-03-9P 75578-04-0DP,  
 reaction products with amines 75578-04-0P 75578-05-1P 75578-06-2P  
 75578-07-3P 75578-08-4P 75578-09-5P 75578-10-8P 75578-11-9P  
 75578-12-0P 75578-14-2P 75578-15-3P 75578-16-4P 75578-17-5P  
 75578-19-7P 75578-21-1DP, reaction products with amines 75578-21-1P  
 75578-23-3DP, reaction products with amines 75578-23-3P 75578-25-5P  
 75578-27-7DP, reaction products with amines 75578-27-7P 75578-28-8P  
 75578-31-3P 75578-33-5DP, reaction products with amines 75578-33-5P  
 75578-35-7DP, reaction products with benzyl bromide 75578-35-7P  
 75578-37-9P 75578-38-0P 75578-39-1P 75587-12-1DP, derivs.  
 75587-12-1P  
 RL: **PREP (Preparation)**  
 (manufacture of, as stabilizers and epoxy hardeners)
- IT 68617-75-4P 75577-94-5P 75578-13-1P 75578-18-6P 75578-20-0P  
 75578-22-2P 75578-24-4P 75578-26-6P 75578-29-9P 75578-30-2P  
 75578-32-4P 75578-34-6P 75578-36-8P 75589-45-6P 75589-46-7P  
 75589-47-8P  
 RL: **PREP (Preparation)**  
 (preparation of)
- IT 826-36-8  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with amines)
- IT 67-64-1, reactions 78-84-2 100-52-7, reactions 108-94-1, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with bis(tetramethylpiperidylaminoethyl)amine)
- IT 5554-54-1 61682-93-7  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with diethylenetriamine)
- IT 105-83-9 111-40-0 112-24-3 2157-24-6 4605-14-5 13274-42-5  
 25497-48-7 75589-44-5  
 RL: RCT (Reactant); RACT (Reactant or reagent)



(reaction of, with triacetoneamine)

IT 64-04-0D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 71-36-3D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 78-81-9D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 98-88-4D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 100-39-0D, reaction products with bis(tetramethylpiperidylaminopropoxy)butane-cyanuric chloride copolymers 100-46-9D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 104-75-6D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 107-11-9D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 107-15-3D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 108-24-7D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 108-91-8D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 108-93-0D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 109-89-7D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 110-89-4D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 110-91-8D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 111-26-2D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 111-86-4D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 111-92-2D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 112-55-0D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 112-90-3D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 123-75-1D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 124-09-4D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 124-30-1D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 141-43-5D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 151-50-8D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 302-01-2D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 822-98-0D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 5332-73-0D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 13952-84-6D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 26628-22-8D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers 36768-62-4D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers  
RL: USES (Uses)

(stabilizers and epoxy hardeners)

IT 112-55-0D, reaction products with bis(tetramethylpiperidylaminoethyl)amine-cyanuric chloride copolymers  
RL: USES (Uses)

(stabilizers and epoxy hardeners)

RN 112-55-0 HCAPLUS

CN 1-Dodecanethiol (7CI, 8CI, 9CI) (CA INDEX NAME)

HS- (CH<sub>2</sub>)<sub>11</sub>-Me

=> => D QUE

L50 134516 SEA FILE=REGISTRY ABB=ON 46.492.16/RID  
 L51 16503 SEA FILE=REGISTRY ABB=ON L50 AND PMS/CI  
 L52 174 SEA FILE=REGISTRY ABB=ON CARDANOL  
 L53 3 SEA FILE=REGISTRY ABB=ON LAURIC ACID/CN OR MYRISTIC ACID/CN  
 OR PALMITIC ACID/CN  
 L54 7 SEA FILE=REGISTRY ABB=ON STEARIC ACID/CN OR ARACHIDIC ACID/CN  
 OR PALMITOLEIC ACID/CN OR OLEIC ACID/CN OR RICINOLEIC ACID/CN  
 OR LINOLEIC ACID/CN OR ARACHIDONIC ACID/CN  
 L55 4 SEA FILE=REGISTRY ABB=ON DODECYL MERCAPTAN/CN OR PHENYL  
 MERCAPTAN/CN OR LAURYL THIOGLYCOLATE/CN OR OCTYL THIOGLYCOLATE/  
 CN  
 L56 27181 SEA FILE=HCAPLUS ABB=ON L51  
 L57 127435 SEA FILE=HCAPLUS ABB=ON L52 OR L53 OR L54 OR L55  
 L60 7482 SEA FILE=HCAPLUS ABB=ON L56(L) COPOLYMER?  
 L62 10 SEA FILE=HCAPLUS ABB=ON L56(L) L57  
 L65 41 SEA FILE=HCAPLUS ABB=ON L56(L) FATTY ACID#(L) COPOLYMER?  
 L66 836 SEA FILE=HCAPLUS ABB=ON L57(L) COPOLYMER?  
 L67 10 SEA FILE=HCAPLUS ABB=ON L60 AND L66  
 L68 56 SEA FILE=HCAPLUS ABB=ON L62 OR L65 OR L67  
 L69 16 SEA FILE=HCAPLUS ABB=ON L68 AND (PREP OR IMF OR SPN OR  
 POF)/RL  
 L70 7564 SEA FILE=REGISTRY ABB=ON 554-63-8/CRN OR 143-07-7/CRN OR  
 57-10-3/CRN OR 506-32-1/CRN OR 506-30-9/CRN OR 373-49-9/CRN OR  
 141-22-0/CRN OR 112-80-1/CRN  
 L71 5141 SEA FILE=REGISTRY ABB=ON 60-33-3/CRN OR 57-11-4/CRN  
 L72 35 SEA FILE=REGISTRY ABB=ON L51 AND (L70 OR L71)  
 L73 1 SEA FILE=REGISTRY ABB=ON L51 AND L52  
 L74 22 SEA FILE=HCAPLUS ABB=ON L72 OR L73  
 L75 12 SEA FILE=HCAPLUS ABB=ON L74(L) (POF OR PREP OR IMF OR SPN)/RL  
 L76 27 SEA FILE=HCAPLUS ABB=ON L69 OR L75  
 L77 49 SEA FILE=HCAPLUS ABB=ON (L68 OR L74) NOT L76  
 L78 39 SEA FILE=HCAPLUS ABB=ON L77 AND ?MELAMINE?  
 L80 32 SEA FILE=HCAPLUS ABB=ON L78 AND COPOLYMER?

=> D L80 BIB ABS HITIND HITSTR 1-32

L80 ANSWER 1 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1993:561751 HCAPLUS  
 DN 119:161751  
 TI **Melamine** resin-containing materials for injection molding  
 IN Sawada, Nobuyuki; Myagawa, Takayuki; Yamamoto, Kazuo; Myata, Kazuyoshi  
 PA Nippon Carbide Kogyo Kk, Japan  
 SO Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 05163419	A2	19930629	JP 1991-350381	19911211
	JP 3144867	B2	20010312		

PRAI JP 1991-350381

19911211

AB The title materials, showing good cylinder stability and giving moldings with a good appearance, contain pulp 20-60, higher fatty acids 0.1-5, and HCHO-melamine resins 100 parts. A resin prepared from 1260 g melamine and 1380 g 37% aqueous HCHO was mixed (3000 g) with 500 g pulp, kneaded and dried at 90° to form a popcorn-like product, mixed (600 g) with 900 g powdered melamine resin, 300 g powdered pulp, 13.5 g stearic acid, TiO<sub>2</sub>, red pigment, and additives, pulverized, melt kneaded, extruded, pulverized, and used to prepared injection moldings showing good crack resistance and gloss 95%.

IC ICM C08L061-28

ICS B29C039-00; B29C045-00; C08K005-09; C08L001-00

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 38, 43

ST melamine resin pulp injection molding; fatty acid melamine resin molding; stearic acid melamine resin molding; gloss molding melamine resin pulp; crack resistance melamine resin pulp

IT Pulp, cellulose

(melamine resins containing fatty acids and, injection-moldable)

IT Molding of plastics and rubbers

(injection, melamine resin-fatty acid-pulp mixts. for)

IT 9003-08-1, Melamine-formaldehyde copolymer

RL: USES (Uses)

(injection-moldable, containing pulp and fatty acids)

IT 57-11-4, Stearic acid, miscellaneous 112-85-6, Behenic acid

RL: MSC (Miscellaneous)

(melamine resins containing pulp and, injection-moldable)

IT 9004-34-6

RL: USES (Uses)

(pulp, melamine resins containing fatty acids and, injection-moldable)

IT 9003-08-1, Melamine-formaldehyde copolymer

RL: USES (Uses)

(injection-moldable, containing pulp and fatty acids)

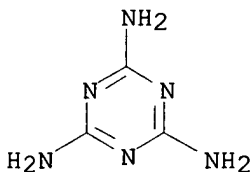
RN 9003-08-1 HCAPLUS

CN 1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde (9CI) (CA INDEX NAME)

CM 1

CRN 108-78-1

CMF C3 H6 N6



CM 2

CRN 50-00-0

CMF C H2 O

H<sub>2</sub>C=O

L80 ANSWER 2 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1991:561159 HCAPLUS  
 DN 115:161159  
 TI Aqueous dispersion of **copolymers** bearing perfluoroalkyl groups  
 IN Roettger, Jutta; Passon, Karl Heinz; Maurer, Werner; Meyer, Rolf Volker;  
 Kortmann, Wilfried; Selinger, Peter  
 PA Bayer A.-G., Germany  
 SO Eur. Pat. Appl., 12 pp.  
 CODEN: EPXXDW

DT Patent  
 LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 424765	A2	19910502	EP 1990-119662	19901013
	EP 424765	A3	19920729		
	EP 424765	B1	19940803		
	R: BE, DE, FR, GB				
	DE 3935859	A1	19910502	DE 1989-3935859	19891027
	US 5093398	A	19920303	US 1990-592142	19901003
	JP 03174418	A2	19910729	JP 1990-282059	19901022
	CA 2028503	AA	19910428	CA 1990-2028503	19901025
	CA 2028503	C	20011218		
PRAI	DE 1989-3935859	A	19891027		

AB The title dispersions, useful as water- and oilproofing finishes for textiles, paper, and leather, contain (graft) **copolymers** of unsatd. compds. bearing C<sub>≥</sub>6 perfluoroalkyl groups and comonomers free of ester groups, and esters bearing linear C<sub>≥</sub>6 groups and 1,2-substituted vinyl groups or no vinyl groups. Peroxide-initiated emulsion polymerization of 2-(N-methylperfluorooctanesulfonamido)ethyl methacrylate 43.4, octadecyl methacrylate 12.7, and vinyl acetate 18.45 parts in the presence of .apprx.29 g glycerol monooleate (I) gave a 14.4% emulsion (average particle size 367 nm) of a polymer containing 20.1% F. A

40:60 mixture of this dispersion and a colloidal siloxane dispersion was diluted to 2.5% solids, sprayed (1% solids) on a polyamide carpet (basis atomic 500 g/m<sup>2</sup>, 30% residual moisture), dried for 5-15 min at 125-150°, and conditioned at 23° and 65% relative humidity for 24 h to give a carpet with oilproofing rating (AATCC method 118, 5 best) 3-4 and waterproofing (resistance to aqueous iso-PrOH, 40% better than 30%) 40-50%; vs. 2 and 40, resp., without I.

IC ICM B01F017-36

ICS C08K005-10; C08L033-14

CC 40-9 (Textiles and Fibers)

Section cross-reference(s): 35, 43, 45

ST fluoropolymer oilproofing waterproofing finish; oilproofing finish fluoropolymer emulsion; waterproofing finish fluoropolymer emulsion; nylon carpet oilproofing waterproofing; glycerol oleate fluoropolymer emulsion; methacrylate perfluoroalkyl **copolymer** emulsion; vinyl acetate **copolymer** emulsion

IT 105-59-9D, 2,2'-(Methylimino)diethanol, reaction products with **melamine** resins and behenic acid, graft polymers with (methylperfluorooctanesulfonamido)ethyl methacrylate, octadecyl methacrylate and vinyl acetate 108-05-4D, Acetic acid ethenyl ester,

graft polymers with **melamine** resin-behenic acid-(methylimino)diethanol reaction products, octadecyl methacrylate and (methylperfluorooctanesulfonamido)ethyl methacrylate 112-85-6D, Behenic acid, reaction products with **melamine** resins and (methylimino)diethanol, poly graft polymers with (methylperfluorooctanesulfonamido)ethyl methacrylate, octadecyl methacrylate and vinyl acetate **9003-08-1D**, Formaldehyde-**melamine copolymer**, reaction products with behenic acid and (methylimino)diethanol, graft polymers with (methylperfluorooctanesulfonamido)ethyl methacrylate, octadecyl methacrylate and vinyl acetate 14650-24-9D, graft polymers with **melamine** resin-behenic acid-(methylimino)diethanol condensation products, octadecyl methacrylate and vinyl acetate 32360-05-7D, graft polymers with **melamine** resin-behenic acid-(methylimino)diethanol reaction products, (methylperfluorooctanesulfonamido)ethyl methacrylate and vinyl acetate 136403-96-8

RL: USES (Uses)

(emulsions, containing **fatty acid** esters, as oilproofing and waterproofing finishes)

IT **9003-08-1D**, Formaldehyde-**melamine copolymer**, reaction products with behenic acid and (methylimino)diethanol, graft polymers with (methylperfluorooctanesulfonamido)ethyl methacrylate, octadecyl methacrylate and vinyl acetate

RL: USES (Uses)

(emulsions, containing **fatty acid** esters, as oilproofing and waterproofing finishes)

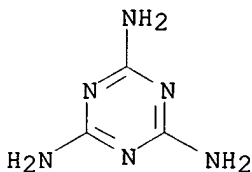
RN 9003-08-1 HCAPLUS

CN 1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde (9CI) (CA INDEX NAME)

CM 1

CRN 108-78-1

CMF C3 H6 N6



CM 2

CRN 50-00-0

CMF C H2 O

H<sub>2</sub>C=O

L80 ANSWER 3 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1990:181468 HCAPLUS

DN 112:181468

TI Oxidative film formation of **melamine**-formaldehyde oligomers

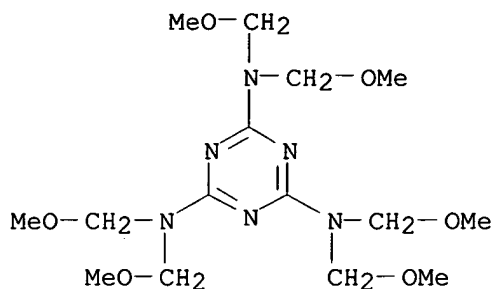
modified with unsaturated fatty acids

AU Semina, R. A.; Mikhailova, T. B.; Makotkin, A. V.; Livshits, R. M.  
 CS GIPI, USSR  
 SO Lakokrasochnye Materialy i Ikh Primenenie (1989), (4), 17-20  
 CODEN: LAMAAAD; ISSN: 0023-737X  
 DT Journal  
 LA Russian  
 AB Modification of oligomeric **melamine**-HCHO resin (I) with tall-oil fatty acids gave film-forming materials with low content of volatile compds. capable of oxidative crosslinking. The obtained coatings exhibited properties similar to those of alkyd coatings and superior to those of nonmodified I-based coatings. Investigations conducted on model oligomers obtained by acidolysis of **hexamethoxymethylmelamine** with linoleic and linolenic acids showed that a significant role in crosslinking I oligomers plays homocondensation of MeO groups. This reaction can be catalyzed by products of oxidation of unsatd. fatty acid residues.

CC 42-10 (Coatings, Inks, and Related Products)  
 ST aminoplast fatty acid modification coating; **melamine** resin fatty acid modification; tall oil acid modification aminoplast; linoleic acid modification; linolenic acid modification aminoplast  
 IT Coating materials  
     (**melamine** resin modified with tall-oil fatty acids, oxidative crosslinking and properties of)  
 IT Glass temperature and transition  
     (of coatings prepared by oxidative crosslinking of tall-oil fatty acid-modified oligomeric **melamine** resins)  
 IT Crosslinking  
     (oxidative, of **melamine** resin-based coatings modified with tall-oil fatty acids)  
 IT Fatty acids, compounds  
     RL: USES (Uses)  
         (tall-oil, reaction products, with oligomeric **melamine** resins, coatings, oxidative crosslinking of)  
 IT **126540-35-0** 126540-36-1  
     RL: USES (Uses)  
         (oligomeric, as model for fatty acid-modified **melamine** -formaldehyde resin coating, oxidative crosslinking of)  
 IT **9003-08-1D**, Formaldehyde-**melamine** copolymer,  
     reaction products with tall-oil **fatty acids**  
     RL: USES (Uses)  
         (oligomeric, coatings, oxidative crosslinking and properties of)  
 IT **126540-35-0**  
     RL: USES (Uses)  
         (oligomeric, as model for fatty acid-modified **melamine** -formaldehyde resin coating, oxidative crosslinking of)  
 RN 126540-35-0 HCAPLUS  
 CN 9,12-Octadecadienoic acid (9Z,12Z)-, polymer with N,N,N',N',N'',N''-hexakis(methoxymethyl)-1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)

CM 1

CRN 3089-11-0  
 CMF C15 H30 N6 O6

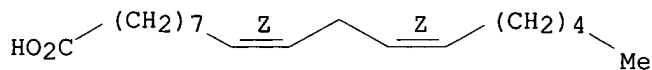


CM 2

CRN 60-33-3

CMF C18 H32 O2

Double bond geometry as shown.



IT 9003-08-1D, Formaldehyde-melamine copolymer,  
reaction products with tall-oil fatty acids

RL: USES (Uses)

(oligomeric, coatings, oxidative crosslinking and properties of)

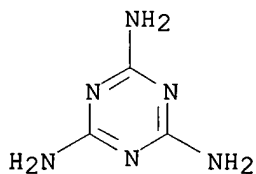
RN 9003-08-1 HCAPLUS

CN 1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde (9CI) (CA INDEX NAME)

CM 1

CRN 108-78-1

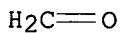
CMF C3 H6 N6



CM 2

CRN 50-00-0

CMF C H2 O



L80 ANSWER 4 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1990:58191 HCAPLUS

DN 112:58191

TI Composition for antipilling finishing of textile materials

IN Podshibyakina, K. D.; Lakhman, L. F.

PA Latvian Scientific-Research Institute of Light Industry, USSR

SO U.S.S.R.

From: Otkrytiya, Izobret. 1989, (31), 151.

CODEN: URXXAF

DT Patent

LA Russian

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	SU 1502672	A1	19890823	SU 1987-4287768	19870721
PRAI	SU 1987-4287768		19870721		

AB In the title finishing of wool and wool blend fabrics with **methylolmelamine** derivs., pilling resistance of the fabrics is improved if the fabrics are finished with compns. comprising Me or ethylene glycol esters of penta- and **hexamethylolmelamine**, poly(oxypropylene, glycol)-MDI block **copolymer** (Latur 1052-3F), and aqueous 30-40% dispersions Me sulfate salts of 2-[N-(methyldiethanol)amino]ethyl esters of tall-oil carboxylic acids. An aqueous antipilling composition contains 1.0-1.3% Me or ethylene glycol esters of penta- and **hexamethylolmelamine**, 2.0-2.5% polyurethane latex (Latur 1052-3F), and 1-2% aqueous dispersion of Me sulfate of 2-[N-(methyldiethanol)amino]ethyl ester of tall-oil carboxylic acids.

IC ICM D06M015-61

ICS D06M015-564

CC 40-9 (Textiles and Fibers)

ST **melamine** resin antipilling agent wool; wool textile antipilling finishing; polyurethane antipilling finish wool textile; fatty acid ester antipilling finish

IT Urethane polymers, uses and miscellaneous

RL: USES (Uses)

(antipilling finishes, containing **melamine** resins and tall-oil fatty acid Me sulfate salts, for wool and wool blends)

IT Fatty acids, esters

RL: USES (Uses)

(tall-oil, esters, with 2-[N-(methyldiethanol)amino]ethanol, Me sulfate salts, antipilling finishes, containing **melamine** resins and polyurethanes, for wool and wool blend)

IT Textiles

(wool, antipilling finishing of, with **melamine** resins containing polyurethanes and Me sulfate salts of (methyldiethanol)ethyl ester of tall-oil fatty acids)

IT **9003-08-1, Formaldehyde-melamine copolymer**

RL: USES (Uses)

(antipilling agents, with polyurethanes and **fatty acid** ester salts, for wool and wool blend fabrics)

IT 9048-57-1

RL: USES (Uses)

(antipilling finishes (Latur 1052-3F), containing **melamine** resins and fatty acid ester salts, for wool and wool blend fabrics)

IT **9003-08-1, Formaldehyde-melamine copolymer**

RL: USES (Uses)

(antipilling agents, with polyurethanes and **fatty acid** ester salts, for wool and wool blend fabrics)

RN 9003-08-1 HCAPLUS

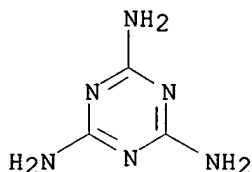


CN 1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde (9CI) (CA INDEX NAME)

CM 1

CRN 108-78-1

CMF C3 H6 N6



CM 2

CRN 50-00-0

CMF C H2 O

H<sub>2</sub>C=O

L80 ANSWER 5 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1989:576584 HCAPLUS

DN 111:176584

TI **Melamine** resin sizing agents for paper

IN Goetze, Thomas; Kamutzki, Walter; Schoen, Manfred

PA Cassella A.-G., Fed. Rep. Ger.

SO Ger. Offen., 7 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3741282	A1	19890615	DE 1987-3741282	19871205
	WO 8905376	A1	19890615	WO 1988-EP1080	19881129
	W: BR, FI, JP, US				
	RW: AT, BE, CH, DE, FR, GB, IT, NL, SE				
	BR 8807832	A	19901023	BR 1988-7832	19881129
	EP 393105	A1	19901024	EP 1989-900215	19881129
	R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE				
	JP 03503787	T2	19910822	JP 1989-500249	19881129
	ES 2012576	A6	19900401	ES 1988-3710	19881205
PRAI	DE 1987-3741282		19871205		
	WO 1988-EP1080		19881129		

OS MARPAT 111:176584

AB Sizing agents for paper which are storage-stable and readily emulsifiable contain **melamines** bearing 1-5 CH<sub>2</sub>OH or alkoxymethyl groups, 1-4 ROCH<sub>2</sub>, RCO<sub>2</sub>CH<sub>2</sub>, or RCONHCH<sub>2</sub> groups (R = C<sub>8</sub>-28 hydrocarbyl), and 0-2 (melaminomethoxy)methyl or melaminomethyl groups. Heating 195 g 95% 1:5.8 **melamine**-HCHO resin, 216.4 g C<sub>18</sub>H<sub>37</sub>OH, and 10 mL 55% HNO<sub>3</sub> at 60° in vacuo for 3 h gave a modified resin. A mixture of this resin

18, 87% cationic starch 10.3, dispersant 1, and H2O 262 g was used to size paper at concentration 0.5, 1, and 2% (based on solids), resulting in sizing rating ( $\geq 20$  very good, 10-20 good, 5-10 fair, 1-5 poor) 0.2,  $>40$ , and  $>40$ , resp.

IC ICM D21H001-28

ICS D21H003-48

ICI C08J003-06, C08L061-28

CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)

Section cross-reference(s): 38

ST sizing agent paper; **melamine** resin modified size; octadecyl ether **melamine** resin size

IT Sizes

(**melamine** resin fatty alkyl ethers and fatty acid esters, storage-stable and emulsifiable, for paper)

IT Paper

(sizes for, storage-stable and emulsifiable **melamine** resin fatty acid esters and fatty alkyl ethers as)

IT Fatty acids, esters

RL: USES (Uses)

(esters, with **melamine** resins, sizes for paper)

IT 57-10-3D, Palmitic acid, esters with **melamine** resins 57-11-4D,

Stearic acid, esters with **melamine** resins 108-78-1D,

1,3,5-Triazine-2,4,6-triamine, methylolated, fatty acid esters and fatty alkyl ethers 112-53-8D, 1-Dodecanol, ethers with **melamine**

resins 112-80-1, Oleic acid, uses and miscellaneous 112-92-5D,

1-Octadecanol, ethers with **melamine** resins 124-26-5D,

Stearamide, reaction products with epoxy resins 9003-08-1D,

Formaldehyde-**melamine** copolymer, fatty

acid esters and fatty alkyl ethers

RL: USES (Uses)

(sizes, storage-stable and emulsifiable, for paper)

IT 9003-08-1D, Formaldehyde-**melamine** copolymer,

fatty acid esters and fatty alkyl ethers

RL: USES (Uses)

(sizes, storage-stable and emulsifiable, for paper)

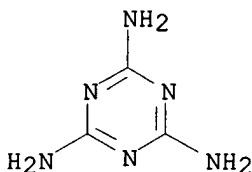
RN 9003-08-1 HCAPLUS

CN 1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde (9CI) (CA INDEX NAME)

CM 1

CRN 108-78-1

CMF C3 H6 N6



CM 2

CRN 50-00-0

CMF C H2 O

H<sub>2</sub>C=O

L80 ANSWER 6 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1988:592279 HCAPLUS

DN 109:192279

TI Stoving primers for metals, containing dicyclopentadienyl maleates

IN Zimmermann, Frank; Freitag, Werner; Lohs, Werner; Sarfert, Werner; Thielemann, Volkmar; Kurtessis, Nikos; Becker, Sieghard

PA VEB Lackfabrik Dresden, Ger. Dem. Rep.

SO Ger. (East), 3 pp.

CODEN: GEXXA8

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DD 253252	A1	19880113	DD 1986-294996	19861003
PRAI	DD 1986-294996		19861003		

AB The title compns., with improved use properties, contain esters of 1:1 dicyclopentadienyl maleate (I) with aliphatic dicarboxylic acid-diol diesters (I functionality 1.5-2) 50-60, alkylated **melamine** resins of medium reactivity 20-30, and esters of nondrying C8-18 fatty acids (.apprx.40%) with bisphenol A epoxy resins (epoxy equivalent 800-1025) 15-25%. A mixture of 58:25:17 I-1,3-butanediol-adipic acid ester (viscosity of an 80% xylene solution 2.1 Pa-s) 55, butylated **melamine** resin 25, and ester of 40% coco fatty acids with bisphenol A epoxy resin 20% gave a coating with crosscut adhesion 1, gloss 110%, and Erichsen indentation 8 mm before, and 1-2, 105, and 6.5, resp., after, 24 h at 200°; vs. 1, 90, 4, 4, 40, and 0.5, resp., for an alkyd-phenolic resin-rosin coating.

IC ICM C09D003-49

CC 42-8 (Coatings, Inks, and Related Products)

ST dicyclopentadienyl maleate coating; adipate butanediol maleate coating; **melamine** resin butylated coating; epoxy resin ester coating; coco fatty acid ester coating

IT Coating materials

(dicyclopentadienyl maleates-alkylated **melamine** resins-epoxy resin fatty acid esters, for metals)

IT 107-88-0D, 1,3-Butanediol, esters with dicyclopentadienylmaleate and adipic acid 124-04-9D, Adipic acid, esters with butanediol and dicyclopentadienylmaleate 28347-17-3D, esters with butanediol and adipic acid

RL: TEM (Technical or engineered material use); USES (Uses)  
(coatings, containing alkylated **melamine** resins and epoxy resin fatty acid esters, for metals)

IT 9003-08-1, Formaldehyde-**melamine** copolymer

RL: TEM (Technical or engineered material use); USES (Uses)  
(coatings, containing dicyclopentadienyl maleates and epoxy resin **fatty acid** esters, for metals)

IT 25068-38-6D, esters with coco fatty acids

RL: TEM (Technical or engineered material use); USES (Uses)  
(coatings, containing dicyclopentadienylmaleates and alkylated **melamine** resins, for metals)

IT 9003-08-1, Formaldehyde-**melamine** copolymer

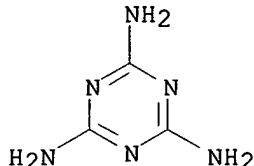
RL: TEM (Technical or engineered material use); USES (Uses)  
(coatings, containing dicyclopentadienyl maleates and epoxy resin

**fatty acid esters, for metals)**

RN 9003-08-1 HCAPLUS  
 CN 1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde (9CI) (CA INDEX NAME)

CM 1

CRN 108-78-1  
 CMF C3 H6 N6



CM 2

CRN 50-00-0  
 CMF C H2 O

H<sub>2</sub>C=O

L80 ANSWER 7 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1987:479829 HCAPLUS  
 DN 107:79829  
 TI Manufacture of microcapsules  
 IN Fukuo, Hidetoshi; Onoguchi, Tomio  
 PA Sakura Color Products Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 4 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 62001451	A2	19870107	JP 1985-137825	19850626
	JP 06018637	B4	19940316		
		US 4753759	A	19880628	US 1986-892783
PRAI	JP 1985-137825		19850626		
	JP 1985-236176		19851021		

AB The title microcapsules, useful for encapsulating leuco dyes in the manufacture of thermal inks or inks for carbonless paper, are prepared by emulsifying hydrophobic, slightly volatile organic compds. in aqueous solns. of acrylic acid-itaconic acid **copolymers**, adding urea or **melamine** and HCHO, adjusting the pH to 2.5-6.0, and forming coatings of urea-HCHO or **melamine**-HCHO **copolymers** around the organic compds. Thus, an aqueous solution of crystal violet lactone in KMC 113 was added to an aqueous solution of Jurmyer 50P, urea, and resorcinol at 50°, the mixture was stirred at 5000 rpm, aqueous NaOH was added to pH 4.0, 37% aqueous HCHO was added, and the mixture was heated at 55°. The resulting slurry of microcapsules was sprayed onto paper to prepare a carbonless paper printing

in blue.

IC ICM B01J013-02

ICA B41M005-12; B41M005-18

CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)  
Section cross-reference(s): 42

ST microencapsulation leuco dye thermal ink; carbonless paper ink dye  
microencapsulation; urea formaldehyde **copolymer** microcapsule  
dye; **melamine** formaldehyde **copolymer** microcapsule dye;  
acrylic itaconic **copolymer** emulsifier microencapsulation

IT Encapsulation  
(micro-, of leuco dyes with urea- or **melamine**-formaldehyde  
**copolymer**, for thermal inks and carbonless paper inks)

IT 25948-33-8, Acrylic acid-itaconic acid **copolymer**  
RL: USES (Uses)  
(emulsifiers, for leuco dyes, in microencapsulation with urea- or  
**melamine**-formaldehyde **copolymer**)

IT 29512-49-0  
RL: PROC (Process)  
(microencapsulation of, with **melamine**-formaldehyde  
**copolymer**, for carbonless paper ink)

IT 98724-23-3, O-DCF  
RL: PROC (Process)  
(microencapsulation of, with **melamine**-formaldehyde  
**copolymer**, for thermal ink)

IT 1552-42-7, Crystal violet lactone  
RL: PROC (Process)  
(microencapsulation of, with urea-formaldehyde **copolymer**, for  
carbonless paper ink)

IT 9003-08-1, **Melamine**-formaldehyde **copolymer**  
9011-05-6, Urea-formaldehyde **copolymer**  
RL: USES (Uses)  
(microencapsulation with, of leuco dye solns., for carbonless paper)

IT 143-07-7, Lauric acid, uses and miscellaneous 544-63-8,  
Myristic acid, uses and miscellaneous 38640-62-9, KMC 113 663917-53-1,  
Hisol SAS 296  
RL: USES (Uses)  
(solvents, for leuco dye, in microencapsulation with urea- or  
**melamine**-formaldehyde **copolymer**)

IT 9003-08-1, **Melamine**-formaldehyde **copolymer**  
RL: USES (Uses)  
(microencapsulation with, of leuco dye solns., for carbonless paper)

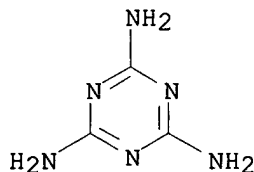
RN 9003-08-1 HCAPLUS

CN 1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde (9CI) (CA INDEX  
NAME)

CM 1

CRN 108-78-1

CMF C3 H6 N6



CM 2

CRN 50-00-0  
CMF C H2 O

H<sub>2</sub>C=O

IT 143-07-7, Lauric acid, uses and miscellaneous 544-63-8,  
Myristic acid, uses and miscellaneous  
RL: USES (Uses)  
(solvents, for leuco dye, in microencapsulation with urea- or  
**melamine**-formaldehyde **copolymer**)  
RN 143-07-7 HCAPLUS  
CN Dodecanoic acid (9CI) (CA INDEX NAME)

HO<sub>2</sub>C-(CH<sub>2</sub>)<sub>10</sub>-Me

RN 544-63-8 HCAPLUS  
CN Tetradecanoic acid (9CI) (CA INDEX NAME)

HO<sub>2</sub>C-(CH<sub>2</sub>)<sub>12</sub>-Me

L80 ANSWER 8 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1987:158065 HCAPLUS  
DN 106:158065  
TI Thermosetting high solids primer composition comprising epoxy ester resin  
and hydroxy-reactive crosslinking agent  
IN Kordomenos, Panagiotis I.; Maker, David L.; Mros, Gordon R.; Nordstrom,  
John D.  
PA Ford Motor Co., USA  
SO U.S., 11 pp.  
CODEN: USXXAM  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4626578	A	19861202	US 1984-685637	19841224
PRAI	US 1984-685637		19841224		

AB Solvent-based thermosetting primers for automobiles comprise aliphatic  
diol-extended, fatty acid-terminated epoxy ester resin (number-average mol.  
weight  
1000-5000) and aminoplast or blocked isocyanate crosslinking agents  
(0.5-1.6 OH-reactive groups/epoxy resin OH group). Thus, a formulation  
comprised 1257:901:836 Epon 829-polycaprolactone diol-soybean fatty acid  
**copolymer** (I) 270, I-containing millbase 800, **melamine** resin  
(Resimine 717) 110, Mn naphthenate 4, and BuOH 35 parts.  
IC ICM C08G018-80  
NCL 525484000  
CC 42-9 (Coatings, Inks, and Related Products)  
IT 4767-03-7D, Dimethylol propionic acid, polymers with epoxy resins and

fatty acids and aminoplasts or blocked polyisocyanates 5314-31-8D, reaction products with polyisocyanates, polymers with epoxy resins and diols and fatty acids **9003-08-1D**, Formaldehyde-melamine copolymer, polymers with epoxy resins and diols and fatty acids 9016-87-9D, Papi 580, reaction products with Me amyl ketoxime, polymers with epoxy resins and diols and fatty acids 25068-38-6D, Epon 829, polymers with diols and fatty acids and aminoplasts or blocked polyisocyanates 29611-97-0D, Araldite RD-2, polymers with diols and fatty acids and aminoplasts or blocked isocyanates 50327-24-7D, PCP 0200, polymers with epoxy resins and fatty acids and aminoplasts or blocked isocyanates 54986-73-1D, Desmodur IL, polymers with epoxy resins and diols and fatty acids 81774-35-8D, DER 333, polymers with diols and fatty acids and aminoplasts or blocked isocyanates 84286-52-2D, Desmodur L-2291a, polymers with epoxy resins and diols and fatty acids

RL: TEM (Technical or engineered material use); USES (Uses)  
(coatings, for automobiles)

IT **9003-08-1D**, Formaldehyde-melamine copolymer, polymers with epoxy resins and diols and fatty acids

RL: TEM (Technical or engineered material use); USES (Uses)  
(coatings, for automobiles)

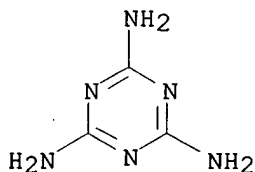
RN 9003-08-1 HCAPLUS

CN 1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde (9CI) (CA INDEX NAME)

CM 1

CRN 108-78-1

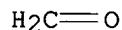
CMF C3 H6 N6



CM 2

CRN 50-00-0

CMF C H2 O



L80 ANSWER 9 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1983:524167 HCAPLUS

DN 99:124167

TI Water-thinned thermosetting coating materials with good resistant to foaming during baking

PA Kansai Paint Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 58040370	A2	19830309	JP 1981-138900	19810903
	JP 02000390	B4	19900108		
PRAI	JP 1981-138900		19810903		

AB Foaming of water-thinned thermosetting resin coating materials during baking is prevented by 0.1-10% (based on solids) benzoin (I) [119-53-9] or C1-4 alkyl ether of I. Thus, a composition of 66% solid alkyd resin solution

(prepared by polymerizing neopentyl glycol 31, trimethylolpropane 7, phthalic anhydride 32, tetrahydrophthalic anhydride 17, trimellitic anhydride 5, and tall-oil **fatty acid** 15 parts, diethanolamine salt) 22.5, TiO<sub>2</sub> 80, baryta 20, carbon black 0.4, Nopco DF 122 NS 1.5, and H<sub>2</sub>O 30 parts with 1.0% (based on total solids of final coating) I was milled 20 h and mixed with the above alkyd resin solution 100, 88% solids **melamine**-formaldehyde **copolymer** [9003-08-1] solution 22.4, EtO(CH<sub>2</sub>)<sub>2</sub>O(CH<sub>2</sub>)<sub>2</sub>OH 10, surfactant 1, and H<sub>2</sub>O 50 parts to give a coating material. When the above composition was applied to a steel plate through a spray gun, set 10 min, and baked 20 min at 160°, the maximum thickness of dry coating without foaming was 52 μ (30 μ without I).

IC C09D005-00

CC 42-7 (Coatings, Inks, and Related Products)

L80 ANSWER 10 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1983:455128 HCAPLUS

DN 99:55128

TI High-solids alkyd resin coating materials

PA Daicel Chemical Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 58021422	A2	19830208	JP 1981-120506	19810731
PRAI	JP 1981-120506		19810731		

AB High-solids alkyd resin coating materials having OH number 20-300, and acid number 0.1-20 are prepared from polyols, polycarboxylic acids or anhydrides, 0-50% vegetable or animal oils or **fatty acids**, and 5-80% ε-caprolactone (I). Thus, a mixture of phthalic anhydride (II) 592, soya **fatty acid** 520, glycerol 386, ethylene glycol 65, I 273, (BuO)<sub>4</sub>Ti 0.0076, and xylene 50 parts was heated 10 h at 160-210° to reach acid number 0.23, cooled to 150°, stirred with 50 parts II at 150° for 2 h, and thinned with xylene to 79.3% solids to give **copolymer** (III) solution having acid number 6.3, OH number 120.6, and viscosity 900 cP at 25°. A 70:30 (solids) mixture of the III solution and Yuban 20SE [9003-08-1] was applied to a steel plate and baked 15 min at 120° to form a 50-60 μ coating.

IC C08G063-46; C08G063-48

ICA C09D003-64

CC 42-8 (Coatings, Inks, and Related Products)

Section cross-reference(s): 55

ST alkyd resin high solid; caprolactone **copolymer** coating; soya fatty acid **copolymer**; **melamine** resin crosslinking agent

IT Crosslinking agents



(**melamine**-formaldehyde **copolymer**, for high-solids alkyd resin coatings)

IT Coating materials

(high-solids, alkyd resins, containing **melamine** resins)

IT 56-81-5D, polymers with phthalic anhydride, glycol, caprolactone, and soya fatty acid 85-44-9D, polymers with glycerol, glycol, caprolactone, and soya fatty acid 107-21-1D, polymers with phthalic anhydride, glycerol, caprolactone, and soya fatty acid 126-30-7D, polymers with phthalic anhydride, glycerol, caprolactone, and soya fatty acid 502-44-3D, polymers with phthalic anhydride, glycerol, and soya fatty acid

RL: TEM (Technical or engineered material use); USES (Uses)

(coatings, high-solids, containing **melamine** resins)

L80 ANSWER 11 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1983:200003 HCAPLUS

DN 98:200003

TI Soldering resists

PA Toshiba Chemical Products Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 57198697	A2	19821206	JP 1981-83222	19810531
PRAI	JP 1981-83222		19810531		

AB Soldering resists contain 70-95 parts of phenolic resin-modified alkyd resins (1-10% phenolic resin, acid number  $\geq 20$ ) and 5-30 parts aminoplasts. Thus, a mixture of soya **fatty acid** 140, trimethylolpropane 147, isophthalic acid 166, and CKM 1282 30 g was heated at 170-210° until the acid number reached 30, cooled to 170°, thinned with 500 g BuO(CH<sub>2</sub>)<sub>2</sub>OH, cooled to 50°, and mixed with 130 g S 6831M (**melamine**-formaldehyde **copolymer**) [ 9003-08-1] to give a soldering-resist ink. A Cu foil-phenolic resin laminate was printed on the Cu side with the above ink and baked 15 min at 180°.

IC H05K003-28; C08L067-08

ICI C08L067-08, C08L061-32

CC 42-12 (Coatings, Inks, and Related Products)

ST soldering resist ink; phenolic resin modified alkyd; **melamine** formaldehyde **copolymer** blend

IT Soldering

(resists, phenolic resin-modified alkyd resin and **melamine** -formaldehyde **copolymers** as)

IT 77-99-6D, polymers with unsatd. fatty acids, isophthalic acid, and phenolic resins 121-91-5D, polymers with unsatd. fatty acids, triols, and phenolic resins 839-90-7D, polymers with unsatd. fatty acids, isophthalic acid, and phenolic resins

RL: USES (Uses)

(soldering resists, containing **melamine**-formaldehyde **copolymer**)

L80 ANSWER 12 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1983:181226 HCAPLUS

DN 98:181226

TI Heat-resistant baking enamel

IN Adamec, Jozef; Drobny, Frantisek

PA Czech.

SO Czech., 3 pp.  
 CODEN: CZXXA9  
 DT Patent  
 LA Slovak  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CS 200964	B	19801031	CS 1979-588	19790126
PRAI	CS 1979-588		19790126		

AB The title baking enamel suitable for hot surfaces (heat-storage stoves, central heating elements) contains an alkyd resin prepared from glycerol, phthalic anhydride, and glycidyl esters of branched-chain **fatty acids** 30-80, formaldehyde-**melamine** resin (I) [9003-08-1] 10-40, pigments 5-50, Ba linoleate (II) [24871-38-3] 0.2-2, a 50% solution of Me Ph siloxane in ethylene glycol mono-Bu ether (III) [111-76-2] 0.1-1.0 parts, and optionally III 1.0-10.0, BuOAc 0.5-8.0, and **copolymers** of acrylic acid, Bu acrylate, hydroxypropyl acrylate, and methylolacrylamide or of Me methacrylate and styrene 0.01-0.2 parts. A typical composition comprised an alkyd resin (acid number 3.2 mg KOH/g) 55.0, I (acid number 0.2 mg KOH/g) 20.0, Ti white 25.0, yellow Fe<sub>2</sub>O<sub>3</sub> 0.1, red Fe<sub>2</sub>O<sub>3</sub> 0.1, carbon black 0.1, an acrylic **copolymer** (acid number 32 mg KOH/g) 0.1, II 0.5, 50% Me Ph siloxane in III 0.1, and BuOAc 4.0 parts.

IC C09D003-64

CC 42-8 (Coatings, Inks, and Related Products)

ST heat resistant baking enamel; alkyd resin heat resistant enamel; **melamine** formaldehyde resin baking enamel; barium linoleate heat resistant enamel; siloxane heat resistant enamel; titanium oxide heat resistant enamel; iron oxide heat resistant enamel; carbon black heat resistant enamel

L80 ANSWER 13 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1983:17570 HCAPLUS

DN 98:17570

TI Pelletized aminoplast molding compositions

PA Matsushita Electric Works, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 2 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 57123224	A2	19820731	JP 1981-8718	19810122
PRAI	JP 1981-8718		19810122		

AB Aminoplast pellets are prepared with good processability by adding 0.5-5% (based on resin) lubricants to the resin. Thus, a composition of **melamine**-formaldehyde **copolymer** [9003-08-1] (H<sub>2</sub>O content 10%) 60, phthalic acid 0.5, zinc stearate 1, coloring agent 1 part was kneaded, ground, extruded with 2 parts stearic acid (I) [57-11-4], and pelletized. The above pellets were molded 2 min at 145° and 100 kg/cm<sup>2</sup> to give level colored moldings.

IC C08J003-12; C08L061-20

CC 37-6 (Plastics Manufacture and Processing)

ST **melamine** formaldehyde resin lubricant; stearic acid lubricant

IT Lubricants

(stearic acid, for **melamine** resin molding compds.)

IT 57-11-4, uses and miscellaneous

RL: USES (Uses)

(lubricants, for **melamine** resin molding compds.)

L80 ANSWER 14 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1983:5505 HCAPLUS  
 DN 98:5505  
 TI High-solids coating materials  
 PA Nippon Oils & Fats Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 57123268	A2	19820731	JP 1981-8698	19810123
PRAI	JP 1981-8698		19810123		

AB High-solids coating materials contain an alkyd resin (number-average mol. weight

700-2000) 100, an acrylic polymer (number-average mol. weight 2000-5000, glass-transition temperature 0-50°) 20-100, and aminoplasts 30-100 parts. Thus, a composition of an 80% solids alkyd resin (derived from coco **fatty acid** 40, phthalic anhydride 28.3, pentaerythritol 17, and trimethylolpropane 14.7 parts) 247, a 60% **copolymer** [63747-55-7] solution (derived from styrene 10, Me methacrylate 53, Bu methacrylate 7, 2-ethylhexyl acrylate 22, 2-hydroxyethyl methacrylate 7, and acrylic acid 1 part) 83, a **melamine**-formaldehyde **copolymer** [9003-08-1] solution 151, TiO<sub>2</sub> 300, Solvesso 100 30, BuOH 10, and BuOCH<sub>2</sub>CH<sub>2</sub>OH 10 parts was milled, thinned, applied to a primed steel plate, left 10 min, and baked 30 min at 140° to form a coating having pencil hardness F, falling-dart (500 g, 0.5-in. diameter) impact strength 40 cm, Erichsen test indentation 3.0 mm, gloss retention after 24 mos of outdoor exposure in Florida 60%, and good acid and gasoline resistance.

IC C09D003-66; C09D005-40  
 CC 42-8 (Coatings, Inks, and Related Products)

L80 ANSWER 15 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1982:599656 HCAPLUS  
 DN 97:199656  
 TI High bond strength phenol-modified polyester coating composition  
 IN Thomas, Charles H.  
 PA Westinghouse Electric Corp. , USA  
 SO U.S., 5 pp.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4347335	A	19820831	US 1981-226339	19810119
PRAI	US 1981-226339		19810119		

AB Water-reducible polyester compns. useful as elec. insulating coil coatings comprise a polyester prepared from an aromatic dicarboxylic acid, tris(hydroxyalkyl) isocyanurate, polyol, unsatd. **fatty acid**, and a tricarboxylic acid, the polyester being modified by formaldehyde-phenol **copolymer** (I) [9003-35-4] and a **hexamethoxymethylmelamine** resin (II) [27936-91-0]. Thus, a polyester was prepared from linoleic acid 535, trimethylolpropane 502, and isophthalic acid 4495 g. The mixture was heated to 176° and

then to 238° over 3 h to acid number 9.5. Then, at 145°, 147.5 g trimellitic anhydride was added and the mixture was heated 3 h at 168°. Then 486.8 g Bu cellosolve was added and the polyester [83670-94-4] was cooled. To 65 g polyester was added 13.7 g I and 24.6 g II. To the composition was added 24.1 g water and 6.9 g Bu cellosolve. The mixture was neutralized to pH 9.2 with dimethylethanolamine. The modified polyester coating had good elec. properties.

IC C09D003-52; C09D003-56; C09D003-66  
 NCL 524538000  
 CC 42-8 (Coatings, Inks, and Related Products)  
 ST polyester phenolic **melamine** coating; elec insulation polyester coating  
 IT 83670-94-4  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (coatings, containing phenolic and **melamine** resins, elec. insulating)

L80 ANSWER 16 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1982:584042 HCAPLUS

DN 97:184042

TI Water-thinned metallic base coating materials

PA Nippon Oils & Fats Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 57090063	A2	19820604	JP 1980-165660	19801125
	JP 63028113	B4	19880607		
PRAI	JP 1980-165660		19801125		

AB Water-thinned metallic base coating materials are prepared by esterifying an allyl alc.-styrene **copolymer**(I) with monocarboxylic acids and then polycarboxylic acid, neutralizing with NH3 or amines, and dispersing in water with powdered metal. Thus, a mixture of I (weight-average mol.

weight 1700)  
 38.8, dehydrated castor oil **fatty acid** 17.6, and xylene 1.6 parts was heated 2.5 h at 230°, cooled to 130°, mixed with 5.9 parts succinic anhydride, heated 30 min at 130°, cooled, and mixed with EtO(CH2)2OH 15.1, iso-PrOH 15.1, and Et3N 5.8 parts to give a varnish. A composition containing Al paste 11.0, iso-PrOH 23.3, EtO(CH2)2OH 6, above varnish 53.5, and Sumimal [9003-08-1] 6.2 parts was stirred to give a coating material. The coating material was thinned, applied to a steel plate, and heated for 5 min at 80° to form a 16-μ coating. The plate was top coated with a clear acrylic resin composition and baked 20 min at 150° to form a 27-μ top layer.

IC C09D005-38; C09D003-733

CC 42-7 (Coatings, Inks, and Related Products)

ST metallic coating material; steel metallic coating material; allyl alc **copolymer** coating; styrene **copolymer** coating; fatty acid ester **copolymer**; succinic anhydride ester **copolymer**; amine salt **copolymer** coating; **melamine** resin crosslinking agent

IT Crosslinking agents

(**melamine**-formaldehyde **copolymers**, for water-thinned allyl alc.-styrene **copolymer** ester salt coatings containing metal powders)

IT Fatty acids, esters

RL: USES (Uses)  
 (vegetable-oil, esters with allyl alc.-styrene **copolymer** and polycarboxylic acids, amine salts, for water-thinned metallic coatings)

IT Coating materials  
 (water-thinned, allyl alc.-styrene **copolymer** ester amine salts, containing powdered aluminum and **melamine** resin)

IT 85-44-9D, esters with allyl alc.-styrene **copolymer** and fatty acids, triethylamine salt 108-30-5D, esters with allyl alc.-styrene **copolymers** and fatty acids, triethylamine salt 552-30-7D, esters with allyl alc.-styrene **copolymer** and fatty acids, triethylamine salt

RL: TEM (Technical or engineered material use); USES (Uses)  
 (coatings, water-thinned, containing powdered aluminum and **melamine** resin)

IT 25119-62-4D, esters with fatty acids and polycarboxylic acids, triethylamine salt

RL: TEM (Technical or engineered material use); USES (Uses)  
 (coatings, water-thinned, containing powdered aluminum and **melamine** resins)

IT 9003-08-1

RL: MOA (Modifier or additive use); USES (Uses)  
 (crosslinking agents, for water-thinned allyl alc.-styrene **copolymer** ester salt coatings containing metal powders)

L80 ANSWER 17 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1981:482494 HCAPLUS

DN 95:82494

TI Water-thinned coating materials

PA Shikoku Kaken Kogyo K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 56024463	A2	19810309	JP 1979-99754	19790804
	JP 60036189	B4	19850819		
PRAI	JP 1979-99754		19790804		

AB Compsn. of water-soluble silicate salt solution 100, water-soluble polymer solution

0.5-50, divalent metal oxides 1-50, ammonium salts of C14-20 **fatty acid** 0.2-15, and silica-coated CaSO<sub>3</sub> 1-50 parts (solids) are useful as water-thinned coating materials. Thus, a composition of 31% solids Na silicate (Na<sub>2</sub>O-SiO<sub>2</sub> molar ratio 1:3) solution 100, 20% solids **melamine-formaldehyde copolymer** [9003-08-1] solution 30, ZnO 3, calcium oleate [142-17-6] 1, and silica-coated CaSO<sub>3</sub> 4 parts (solids) was applied to an asbestos slate to 300 g/m<sup>2</sup> and dried 1 wk to form a coating having pencil hardness 6H and excellent resistance to alkali, chems., hot water, and soiling.

IC C09D001-04; C04B041-32

CC 42-7 (Coatings, Inks, and Related Products)

ST sodium silicate coating; **melamine** formaldehyde **copolymer** coating; water thinned coating; zinc oxide coating additive; calcium sulfite coating additive; silica coated calcium sulfite; oleate calcium coating compn

IT Coating materials  
 (water-thinned, **melamine-formaldehyde copolymer** and sodium silicate-based)

IT 142-17-6 1314-13-2, uses and miscellaneous 10257-55-3  
 RL: USES (Uses)  
 (coatings containing, **melamine**-formaldehyde **copolymer**  
 and sodium silicate-based water-thinned)  
 IT 1344-09-8  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (coatings, water-thinned, containing **melamine**-formaldehyde  
**copolymers**)

L80 ANSWER 18 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1980:78277 HCAPLUS  
 DN 92:78277  
 TI Quick-drying coating materials  
 IN Matsuhira, Osamu; Fujishima, Minoru; Ebisawa, Katsuo  
 PA Hitachi Chemical Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 4 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 54129029	A2	19791006	JP 1978-24168	19780302
	JP 55022516	B4	19800617		
PRAI	JP 1978-24168		19780302		

AB Comps. of 30-70 weight % urethane-modified alkyd resin from 80-95 parts oil-modified alkyd resin and 5-20 parts polyisocyanates and 30-70 weight % aminoplasts are useful as quick-drying coating materials. Thus, 90 parts soya **fatty acid**-modified phthalic anhydride-glycerol **copolymer** having acid number 5 and OH number 270 was treated in xylene with 10 parts hexamethylene diisocyanate at 100° for 4 h and diluted with xylene to 55% solids. A composition of 60 parts (solids) of the above solution and 40 parts formaldehyde-**melamine**-urea **copolymer** [25036-13-9] was heated at 100° and diluted with BuOH to 55% solids. The above solution and 10% of a 1:1 mixture of p-MeC6H4SO3H and MeOH were mixed, applied to a substrate, and dried 5 min at 70° to form a coating having good resistance to solvents, water, and stains.  
 IC C09D003-66  
 CC 42-9 (Coatings, Inks, and Related Products)

L80 ANSWER 19 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1979:153563 HCAPLUS  
 DN 90:153563  
 TI Thermosetting coating materials  
 IN Mochizuki, Minoru; Ito, Yoshiyasu  
 PA Toyo Ink Mfg. Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 3 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 53140333	A2	19781207	JP 1977-39436	19770408
PRAI	JP 1977-39436		19770408		

AB Aminoplast-based thermosetting coating materials containing >10 weight% (solids)  
 resins having acid number ≥40 form high-quality coatings after rapid baking. Thus, a mixture of coconut oil **fatty acid** 12.6,

neopentyl glycol 19.7, isophthalic acid 3.4, and xylene 2 parts was heated at 200° until the acid number reached 8, 14.3 parts trimellitic anhydride added, and heated at 200° to give a polyester (I) having acid number 50. A mixture of BuOCH<sub>2</sub>CH<sub>2</sub>OH 25, Solvesso 100 25, Me methacrylate 21, Bu methacrylate 21, acrylic acid 2, N-butoxyacrylamide 6, and Bz<sub>2</sub>O<sub>2</sub> 1 part was heated at 100° to give a **copolymer** (II) [69735-78-0] solution A composition of I 40, II 30, and **melamine**-formaldehyde **copolymer** [9003-08-1] 30 parts (solids) was diluted with Solvesso 150 to 50% solids, applied to a tin plate and baked 5 min at 160° to give a coating having comparable qualities to those of a similar coating without I baked 10 min at 170°.

IC C09D003-06  
CC 42-9 (Coatings, Inks, and Related Products)  
ST aminoplast acrylic polyester coating; **melamine** formaldehyde **copolymer** coating; trimellitic anhydride polyester

L80 ANSWER 20 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1979:139156 HCAPLUS

DN 90:139156

TI Alkyd resin-based high-solids coating materials

IN Sato, Tetsuya; Tawada, Hirohisa; Okazaki, Yasuhisa; Watanabe, Nobuyuki; Takai, Makoto; Onoda, Koji

PA Miyoshi Oil and Fat Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 53130748	A2	19781115	JP 1977-44584	19770420
PRAI	JP 1977-44584		19770420		

AB Comps. of 50-90 parts alkyd resins having acid number 2-14, OH number 95-400, and solution viscosity (90% in xylene) 1-3 P at 25° and containing 3-7:3-7 mixts. of C12-22 linear **fatty acid** glycidyl ester and α-alkyl C9-21 **fatty acid** glycidyl ester and 10-50 parts aminoplasts are useful as high-solids coatings. Thus, C12-15 **fatty acid** glycidyl ester 196, C12-15 α-branched **fatty acid** glycidyl ester 84, coconut oil **fatty acid** 200, trimethylolpropane 270, ethylene glycol 190, phthalic anhydride 300, and adipic acid 150 parts were heated in xylene to give a **copolymer** having acid number 7.5, OH number 247, and soln viscosity (90% in xylene) 2.15 P at 25°. A composition of the above **copolymer** 70, **melamine**-formaldehyde **copolymer** [9003-08-1] 30, and TiO<sub>2</sub> 100 parts (solids) was thinned with 1:1 xylene-BuOH to 81.5% solids to give a coating material which was applied to a steel plate and baked 20 min at 145° to form a coating having gloss 93.1 and 71.6% before and after 500 h of irradiation in a weatherometer, resp., pencil hardness H, and impact strength (500 g dart) 35 cm.

IC C08L067-08

CC 42-9 (Coatings, Inks, and Related Products)

ST alkyd high solid coating; fatty acid glycidyl ester; epoxy modified alkyl resin; **melamine** resin blend coating

IT Coconut oil

RL: USES (Uses)

(fatty acids, alkyd resins modified by, as high-solids coatings, containing fatty acid glycidyl esters and **melamine** resins)

IT Fatty acids, esters

RL: USES (Uses)

(glycidyl esters, alkyd resin coatings containing **melamine** resins and, high-solids)

IT Coating materials  
(high-solids, alkyd resins, containing fatty acid glycidyl esters and **melamine** resins)

IT 556-52-5D, esters with linear and branched fatty acids  
RL: USES (Uses)  
(alkyd resin coatings containing **melamine** resins and, high-solids)

IT 40526-34-9D, esters with coconut oil fatty acids  
RL: TEM (Technical or engineered material use); USES (Uses)  
(coatings, containing fatty acid glycidyl esters and **melamine** resins, high-solids)

L80 ANSWER 21 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1978:425984 HCAPLUS

DN 89:25984

TI Permanent topical antistats

IN Stevens, Violete L.; Sexton, Arthur R.; Lalk, James W.; Deibel, Ronald D.; Corson, Fred P.

PA Dow Chemical Co., USA

SO U.S., 4 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4080161	A	19780321	US 1976-678574	19760420
	NL 7704015	A	19771024	NL 1977-4015	19770413
	FR 2348959	A1	19771118	FR 1977-11715	19770419
	FR 2348959	B1	19800912		
	GB 1586520	A	19810318	GB 1977-42150	19771010
PRAI	US 1975-553713		19750227		
	US 1976-678574		19760420		
	US 1977-781826		19770328		

AB Antistatic compns. for polyamide and polyester fiber comprise a mixture of a polymer consisting of glycidol, ethylene oxide, and glycidyl stearate units with a mol. weight of <20,000, a formaldehyde-**melamine** copolymer (I) [9003-08-1], and an acid catalyst which promotes the condensation between the polymer and I. A typical polymer was prepared by polymerizing a mixture of ethylene oxide and tert-Bu glycidyl ether

(9:1 molar ratio) using ethylene glycol as the initiator and KOH or catalyst to give a polymer of mol. weight 1300 and the polymer was simultaneously dealkylated and esterified with stearic acid. When applied in conjunction with I and ZnBF<sub>4</sub> to a polyamide carpet and cured the sample develop 6100 V compared to 12,300 for an untreated sample.

IC C08G023-22

NCL 008115600

CC 39-10 (Textiles)

ST antistatic compn polyamide polyester fiber; glycidyl stearate polymer antistatic; **melamine** formaldehyde polymer antistatic

IT Carpets

(antistatic agents for polyamide-based, ethylene oxide-glycidol-glyciyl stearate polymer-**melamine**-formaldehyde polymer mixts. as)

IT Polyamide fibers, uses and miscellaneous

Polyester fibers, uses and miscellaneous

RL: USES (Uses)



(antistatic agents for, ethylene oxide-glycidol-glyciyl stearate polymer-**melamine**-formaldehyde polymer mixts. as)

IT Antistatic agents  
(ethylene oxide-glycidol-glycidyl stearate polymers and **melamine**-formaldehyde polymers, for polyamides and polyester fibers)

IT 57-11-4D, ester with dealkylated tert-Bu glycidyl ether-ethylene oxide **copolymer** 57301-20-9D, dealkylated, ester with stearic acid  
RL: USES (Uses)  
(antistatic agents, containing formaldehyde-**melamine** polymer, for polyester and polyamide fibers)

IT 57-11-4D, ester with dealkylated tert-Bu glycidyl ether-ethylene oxide **copolymer**  
RL: USES (Uses)  
(antistatic agents, containing formaldehyde-**melamine** polymer, for polyester and polyamide fibers)

RN 57-11-4 HCAPLUS

CN Octadecanoic acid (9CI) (CA INDEX NAME)

HO<sub>2</sub>C-(CH<sub>2</sub>)<sub>16</sub>-Me

L80 ANSWER 22 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1978:407554 HCAPLUS

DN 89:7554

TI Antistatic treatment for textile materials

PA Dow Chemical Co., USA

SO Neth. Appl., 15 pp.

CODEN: NAXXAN

DT Patent

LA Dutch

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	NL 7704015	A	19771024	NL 1977-4015	19770413
	US 4080161	A	19780321	US 1976-678574	19760420
	US 4125369	A	19781114	US 1977-781826	19770328
PRAI	US 1976-678574		19760420		
	US 1977-781826		19770328		
	US 1975-553713		19750227		

AB Antistatic comps. which can be applied to textile products such as rugs contain partially esterified hydroxylated polyethers of mol. weight <20,000, a primary OH-reactive hardener, and a catalyst. Thus, a random 9:1 ethylene oxide-tert-Bu glycidyl ether **copolymer** of mol. weight 5000 was prepared, dealkylated at 130° in the presence of p-toluenesulfonic acid [104-15-4], and esterified with stearic acid to give a product (I) with an average of 1 stearate group per mol. A nylon shag-plush carpet of weight 1020 g/m<sup>2</sup> was treated with aqueous I containing

1.6%

p-toluenesulfonic acid and 17.5% **melamine**-formaldehyde polymer [9003-08-1] hardener at I add-on 6.8 g/m<sup>2</sup> and cured 7 min at 150°, giving a carpet sample with charge at 20% relative humidity 1120 and soil resistance equal to that of an untreated control.

IC C08L071-02

CC 39-10 (Textiles)

IT Carpets

Polyamide fibers, uses and miscellaneous  
 RL: USES (Uses)  
 (antistatic agents for, ethylene oxide-glycidol **copolymer** stearates as)  
 IT Antistatic agents  
 (ethylene oxide-glycidol **copolymer** stearates, for nylon carpet)  
 IT 57-11-4D, esters with dealkylated butylglycidyl ether-ethylene oxide **copolymer** 57301-20-9D, dealkylated, stearate  
 RL: USES (Uses)  
 (antistatic agents, for nylon carpeting)  
 IT 57-11-4D, esters with dealkylated butylglycidyl ether-ethylene oxide **copolymer**  
 RL: USES (Uses)  
 (antistatic agents, for nylon carpeting)  
 RN 57-11-4 HCAPLUS  
 CN Octadecanoic acid (9CI) (CA INDEX NAME)

HO<sub>2</sub>C-(CH<sub>2</sub>)<sub>16</sub>-Me

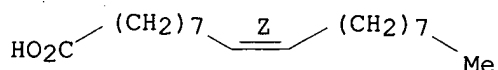
L80 ANSWER 23 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1977:537564 HCAPLUS  
 DN 87:137564  
 TI Mass sizing of paper  
 IN Taubitz, Chritof; Reichel, Fritz  
 PA BASF A.-G., Fed. Rep. Ger.  
 SO Ger. Offen., 19 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2604547	A1	19770811	DE 1976-2604547	19760206
	AU 7721497	A1	19780727	AU 1977-21497	19770120
	SE 7701060	A	19770807	SE 1977-1060	19770201
	FR 2340401	A1	19770902	FR 1977-3154	19770204
	FR 2340401	B3	19791005		
	JP 52096209	A2	19770812	JP 1977-11710	19770207
PRAI	DE 1976-2604547		19760206		

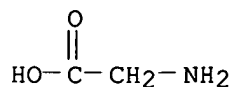
AB Mixts. of **melamine** resins and styrene (I) **copolymer** dispersions, obtained by polymerization of I with acrylates in the presence of K2S2O8 and sulfonates, were used for paper sizing. Thus, addition of 0.7%, butyl acrylate-2-ethylhexyl acrylate-styrene-vinyltoluene **copolymer** [64078-54-2] dispersion and 0.3% formaldehyde-**melamine**-sodium o-aminobenzoate **copolymer** [40883-90-7] to spruce sulfite pulp gave paper (surface weight 80 g/mm<sup>2</sup>) with 19.3 Cobb value (DIN 53 132) and 12 min 50% ink penetration (DIN 53 126).  
 IC D21H003-36  
 CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)  
 Section cross-reference(s): 36  
 ST styrene **copolymer** paper sizing; **melamine copolymer** paper sizing  
 IT Sizing  
 (of paper, with styrene **copolymer** dispersions containing

melamine resins)  
 IT Paper  
   (sizing of, with styrene **copolymer** dispersions containing  
   melamine resins)  
 IT Castor oil  
   RL: USES (Uses)  
     (sulfated emulsifier, for manufacture of styrene **copolymer**  
     dispersions)  
 IT Emulsifying agents  
   (sulfonates, for manufacture of styrene **copolymer** dispersions)  
 IT 112-80-1D, sulfonated 151-21-3, uses and miscellaneous  
   2386-53-0 25155-30-0 27136-81-8  
   RL: USES (Uses)  
     (emulsifier, for manufacture of styrene **copolymer** dispersions)  
 IT 51793-47-6  
   RL: USES (Uses)  
     (emulsifiers, containing sodium sulfate, for manufacture of styrene  
     **copolymer** dispersions)  
 IT 25153-46-2 25767-47-9 26636-08-8 64054-79-1 64078-54-2  
   RL: USES (Uses)  
     (paper sizing with, containing melamine resin)  
 IT 38566-14-2  
   RL: USES (Uses)  
     (paper sizing with, containing styrene **copolymer** dispersions)  
 IT 40883-90-7  
   RL: USES (Uses)  
     (paper sizing with, containing styrene **copolymer**)  
 IT 40883-89-4  
   RL: USES (Uses)  
     (paper sizing with, containing styrene **copolymer** dispersions)  
 IT 112-80-1D, sulfonated  
   RL: USES (Uses)  
     (emulsifier, for manufacture of styrene **copolymer** dispersions)  
 RN 112-80-1 HCAPLUS  
 CN 9-Octadecenoic acid (9Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IT 38566-14-2  
   RL: USES (Uses)  
     (paper sizing with, containing styrene **copolymer** dispersions)  
 RN 38566-14-2 HCAPLUS  
 CN Glycine, monosodium salt, polymer with formaldehyde and  
   1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 6000-44-8  
 CMF C2 H5 N O2 . Na

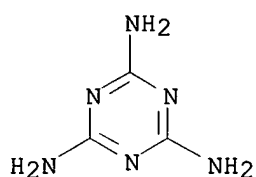


● Na

CM 2

CRN 108-78-1

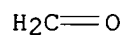
CMF C3 H6 N6



CM 3

CRN 50-00-0

CMF C H2 O



IT 40883-90-7

RL: USES (Uses)

(paper sizing with, containing styrene **copolymer**)

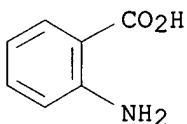
RN 40883-90-7 HCAPLUS

CN Benzoic acid, 2-amino-, monosodium salt, polymer with formaldehyde and 1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)

CM 1

CRN 552-37-4

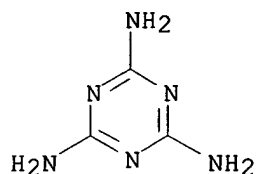
CMF C7 H7 N O2 . Na



● Na

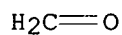
CM 2

CRN 108-78-1  
CMF C3 H6 N6



CM 3

CRN 50-00-0  
CMF C H2 O



IT 40883-89-4

RL: USES (Uses)

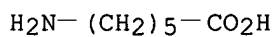
(paper sizing with, containing styrene **copolymer** dispersions)

RN 40883-89-4 HCAPLUS

CN Hexanoic acid, 6-amino-, monopotassium salt, polymer with formaldehyde and 1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)

CM 1

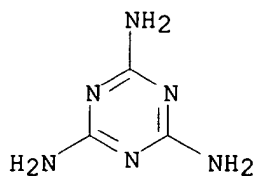
CRN 48047-10-5  
CMF C6 H13 N O2 . K



● K

CM 2

CRN 108-78-1  
CMF C3 H6 N6



CM 3

CRN 50-00-0

CMF C H2 O

H<sub>2</sub>C=O

L80 ANSWER 24 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1977:518643 HCAPLUS  
 DN 87:118643  
 TI Surface treatment of **melamine** molding pieces  
 AU Wirpsza, Zygmunt; Aleksandrowicz, Maria; Piechna, Jan  
 CS Inst. Tworzyw Sztucznych Skory, Politech. Swietokrzyska, Radom, Pol.  
 SO Polimery (Warsaw, Poland) (1977), 22(2), 47-9  
 CODEN: POLIA4; ISSN: 0032-2725  
 DT Journal  
 LA Polish  
 AB The treatment of **melamine**-formaldehyde copolymer (I) [9003-08-1] dishes with 4% **melamine** (II) [108-78-1] solution in 0.1% aqueous H<sub>3</sub>PO<sub>4</sub> solution for 15 min at 100° decreased their content of free HCHO [50-00-0], which could be estimated with boiling water, by 1/3 and decreased their discoloration by coffee and ink .apprx.9 times. The addnl. treatment of I with 1% stearamide [124-26-5] solution in EtOH completely eliminated the staining with coffee. The concentration of free HCHO in I could be also reduced by treatments with o- or p-phenylene diamines, but they colored I; H<sub>2</sub>SO<sub>3</sub> and (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub> were not effective. The discoloration with coffee could also be prevented by treating I with maleic anhydride [108-31-6], stearic acid [57-11-4] or Siltex 24 (an organic Si compound) solns.; oxalic acid was not effective.  
 CC 36-6 (Plastics Manufacture and Processing)  
 ST **melamine** resin coffee discoloration; surface treatment  
**melamine** resin; formaldehyde extractable **melamine** resin;  
 staining prevention **melamine** dishes  
 IT Dishes  
 (from **melamine** resins, discoloration prevention and free formaldehyde extraction from)  
 IT Siloxanes and Silicones  
 RL: USES (Uses)  
 (**melamine** resins treated with, discoloration resistance of)  
 IT Discoloration prevention  
 (of **melamine** resins, by coffee and ink)  
 IT 57-11-4 108-31-6 124-26-5  
 RL: USES (Uses)  
 (**melamine** resins treated with, discoloration resistance of)  
 IT 108-78-1  
 RL: USES (Uses)  
 (**melamine** resins treated with, for removal of free formaldehyde and staining prevention)  
 IT 50-00-0  
 RL: USES (Uses)  
 (residues of, in **melamine** resins, discoloration in relation to)

L80 ANSWER 25 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

AN 1977:56896 HCAPLUS  
 DN 86:56896  
 TI Aqueous lacquer formulation  
 IN Massy, Derek J. R.; Winterbottom, Kenneth  
 PA Ciba-Geigy A.-G., Switz.  
 SO Ger. Offen.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2621078	A1	19761125	DE 1976-2621078	19760512
	GB 1489109	A	19771019	GB 1975-20552	19750515
	CA 1077638	A1	19800513	CA 1976-252410	19760513
	FR 2311071	A1	19761210	FR 1976-14573	19760514
	JP 51149323	A2	19761222	JP 1976-55983	19760515
PRAI	GB 1975-20552		19750515		

AB Polymerizing dicarboxylic acids with glycols, **fatty acids** and mercaptocarboxylic acids gave polyesterthiols for use in coating of glass and steel plates. Thus, a mixture of 80% polyesterthiol (acid and SH number 0.73 and 0.78 val/kg, resp.) NH<sub>4</sub> salt solution, from coconut oil **fatty acid**, glycerol [56-81-5], mercaptoacetic acid [68-11-1], pentaerythritol [115-77-5] and phthalic anhydride [85-44-9], and 75% formaldehyde-melamine copolymer [9003-08-1] solution in 100:25 ratio based on dry solids was diluted to 65% solid content, applied on glass and galvanized steel plate at 75 µm film thickness, hardened for 20 min at 130°C, and conditioned overnight at 20°C and 65% relative humidity to give a specimen with 277 s hardness and 12.5 mm flexure.

IC C09D003-66  
 CC 42-9 (Coatings, Inks, and Related Products)  
 ST polyesterthiol aminoplast coating compn; **melamine** resin coating compn; glass polyesterthiol aminoplast coating; steel polyesterthiol aminoplast coating

L80 ANSWER 26 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1976:510211 HCAPLUS  
 DN 85:110211  
 TI Coreaction products  
 IN Yurcheshen, Michael; Levine, Morris; Brane, Ralph M.  
 PA PPG Industries, Inc., USA  
 SO U.S., 8 pp. Division of U.S. 3,502,557.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3965058	A	19760622	US 1969-854262	19690829
	US 3502557	A	19700324	US 1965-444793	19650401
	BE 678907	A	19661003	BE 1966-678907	19660401
PRAI	US 1965-444793		19650401		

AB Electrophoretic coatings with good throwing power contained a reaction product of an amine-aldehyde condensate with a polyfunctional material containing both hydroxyl and carboxyl groups, preferably bis(hydroxyaryl)alkylidenecarboxylic acids, and contained optionally other resins. Thus, a mixture containing 1000 parts hexakis(methoxymethyl) **melamine** and 400 parts ricinoleic acid was heated 8 hr at

290°F to give a product with acid number .apprx.91, which was heated 3 hr at 200°F with 600 parts bisphenol A and 8 parts p-toluenesulfonic acid to give a **copolymer [60279-89-2]** with acid number 24, that provided a hard, thermoset coating on a substrate.

IC C09D003-50

NCL 260021000

CC 42-7 (Coatings, Inks, and Related Products)

ST **methoxymethylmelamine copolymer** coating; ricinoleic acid **copolymer** coating; bisphenol A **copolymer** coating

IT Coating materials

(electrophoretic thermosetting, from amine-aldehyde condensate-hydroxycarboxylic acid **copolymers**)

IT 1,3,5-Triazine-2,4,6-triamine, N,N,N',N',N'',N'''-hexakis(methoxymethyl)-, methylated, polymers with bis(hydroxyphenyl)pentanoic acid 9-Octadecenoic acid, 12-hydroxy-, polymers with butylated formaldehyde-urea resin or hexakis(methoxymethyl)**melamine** -bisphenol A mixture, [R-(Z)]-

Benzenebutanoic acid, 4-hydroxy-γ-(4-hydroxyphenyl)-γ-methyl-, polymers with methylated **hexamethylolmelamine** or butylated formaldehyde-urea resin

Urea, polymer with formaldehyde, butylated, polymers with bis(hydroxyphenyl)pentanoic acid or ricinoleic acid

RL: TEM (Technical or engineered material use); USES (Uses) (coatings, electrophoretic thermosetting)

IT 31423-75-3 31423-76-4 **31423-77-5 31533-93-4**

33395-69-6 60279-88-1 **60279-89-2**

RL: TEM (Technical or engineered material use); USES (Uses) (coatings, electrophoretic thermosetting)

IT **31423-77-5 31533-93-4 60279-89-2**

RL: TEM (Technical or engineered material use); USES (Uses) (coatings, electrophoretic thermosetting)

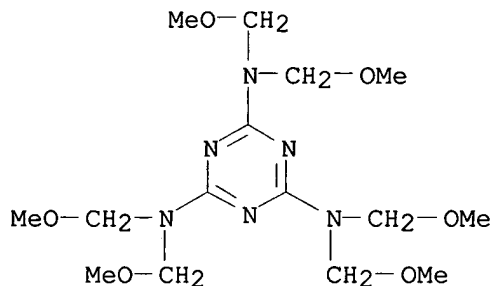
RN 31423-77-5 HCAPLUS

CN 9-Octadecenoic acid, 12-hydroxy-, [R-(Z)]-, polymer with N,N,N',N',N'',N'''-hexakis(methoxymethyl)-1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)

CM 1

CRN 3089-11-0

CMF C15 H30 N6 O6



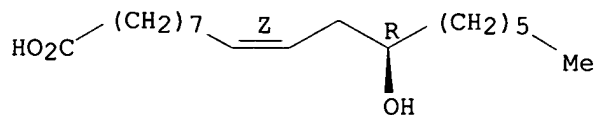
CM 2

CRN 141-22-0



CMF C18 H34 O3

Absolute stereochemistry. Rotation (-).  
Double bond geometry as shown.



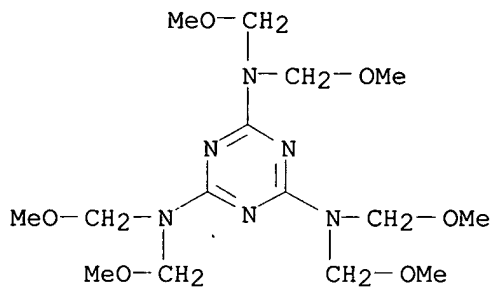
RN 31533-93-4 HCAPLUS

CN Benzenebutanoic acid, 4-hydroxy- $\gamma$ -(4-hydroxyphenyl)- $\gamma$ -methyl-,  
polymer with N,N,N',N',N'',N'''-hexakis(methoxymethyl)-1,3,5-triazine-2,4,6-  
triamine and [R-(Z)]-12-hydroxy-9-octadecenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 3089-11-0

CMF C15 H30 N6 O6

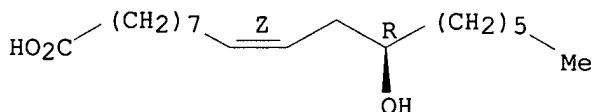


CM 2

CRN 141-22-0

CMF C18 H34 O3

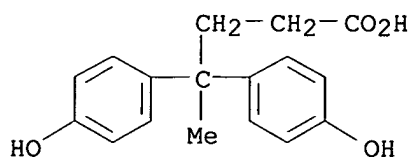
Absolute stereochemistry. Rotation (-).  
Double bond geometry as shown.



CM 3

CRN 126-00-1

CMF C17 H18 O4



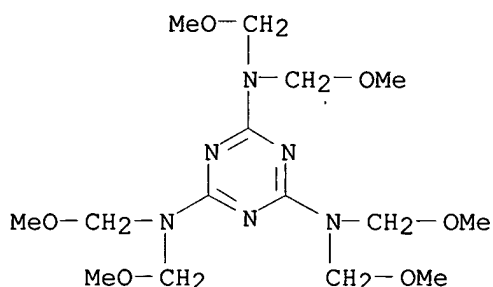
RN 60279-89-2 HCAPLUS

CN 9-Octadecenoic acid, 12-hydroxy-, [R-(Z)]-, polymer with  
N,N,N',N',N'',N''-hexakis(methoxymethyl)-1,3,5-triazine-2,4,6-triamine and  
4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 3089-11-0

CMF C15 H30 N6 O6

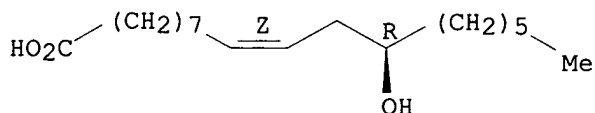


CM 2

CRN 141-22-0

CMF C18 H34 O3

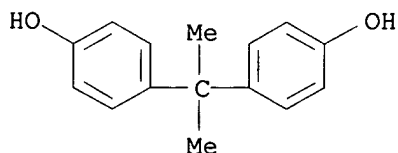
Absolute stereochemistry. Rotation (-).  
Double bond geometry as shown.



CM 3

CRN 80-05-7

CMF C15 H16 O2



L80 ANSWER 27 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1976:75022 HCAPLUS  
 DN 84:75022  
 TI Alkali-soluble resins with improved heat resistance  
 IN Kato, Sadanobu  
 PA Denki Kagaku Kogyo K. K., Japan  
 SO Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 50121349	A2	19750923	JP 1974-10979	19740128
	JP 56042609	B4	19811006		
PRAI	JP 1974-10979		19740128		

AB An alkali-soluble resin with improved heat resistance is prepared by heat-treating a **copolymer** obtained by polymerizing a 80-97:3-20 vinyl **fatty acid** ester-unsatd. carboxylic acid or carboxylate ester mixture containing 0.1-5 parts (based on 100 parts mixture) aromatic vinyl compound or diallyl compds. Thus, a mixture of H<sub>2</sub>O [containing 0.3 part poly(vinyl alc.)] 180, vinyl acetate 95, crotonic acid (I) 5, lauroyl peroxide 3.5, and N,N-diallylmelamine 0.5 part was polymerized at 60-3° for 5 hr, filtered, and dried to give pearly **copolymer** [58152-81-1] which was heat-treated at 85°, giving an alkali-soluble polymer with softening point 81° and m.p. 162°.

IC C08LJF; C09D  
 CC 36-3 (Plastics Manufacture and Processing)  
 ST alkali sol vinyl **copolymer**; heat resistant vinyl **copolymer**; fatty acid ester **copolymer**; carboxylic acid unsatd **copolymer**; carboxylate ester unsatd **copolymer**

L80 ANSWER 28 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1975:481424 HCAPLUS  
 DN 83:81424  
 TI Acrylate coating compositions for cement boards  
 IN Yano, Naomichi; Koshizuka, Satoru; Tanaka, Satoshi; Takeuchi, Takao; Yamada, Shunichi  
 PA Kubota, Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 50030934	A2	19750327	JP 1973-82219	19730719
	SE 7409399	A	19750120	SE 1974-9399	19740718
	SE 419748	B	19810824		
	SE 419748	C	19811203		
	SE 7808052	A	19780721	SE 1978-8052	19780721
PRAI	JP 1973-82218		19730719		
	JP 1973-82219		19730719		
	JP 1973-82220		19730719		

AB Coating compns. giving an alkali- and blocking-resistant film on cement

building materials, such as asbestos cement boards, are prepared from a mixture of a **copolymer** (comprising C1-8 alkyl (meth)acrylate, a monomer containing carboxyl group, one or more of styrene,  $\alpha$ -methylstyrene, vinyltoluene, vinyl acetate, vinyl propionate, vinyl **fatty acid** ester, one or more of monomers containing N-methylol, methylol ether, OH, or epoxy group) and a water-soluble amino resin. Thus, a mixture of water 60, nonionic surfactant (Emulgen) 3, anionic surfactant 0.2, and Na<sub>2</sub>S<sub>2</sub>O<sub>8</sub> was mixed at 65° with a 0.1 part Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, mixed dropwise with a monomer mixture of Me methacrylate 64, 2-ethylhexyl acrylate 32, and methacrylic acid 4 parts, mixed with 0.2 part Na<sub>2</sub>S<sub>2</sub>O<sub>8</sub> and 0.2 part Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, heated 2 hr at 65° to give a **copolymer** [25133-98-6] emulsion (42% solids), which (80 parts) was mixed 10% of a water-soluble **melamine** resin (Sumitex M3 [39429-81-7]), 85 parts water, 20 parts of an aqueous 2% poly(Na acrylate) solution, 0.1 part of a silicone defoaming agent, and 0.1 part formalin to give a coating composition. The composition was coated on an

asbestos

cement board, and cured 10 hr at 180° and with 7 kg/cm<sup>2</sup> steam to give a surface smooth and blocking-resistant coating film.

NCL 24(3)B825.1; 24(3)C9

CC 42-7 (Coatings, Inks, and Related Products)

Section cross-reference(s): 58

ST coating compn cement board; acrylate coating compn emulsion;

**melamine** acrylate resin coating

IT Cement

(asbestos blocks, methacrylate **copolymer-melamine** resin coatings on, alkali- and blocking-resistant)

IT Building materials

(asbestos-cement blocks, methacrylate **copolymer-melamine** resin coatings on, alkali- and blocking-resistant)

IT Asbestos

RL: USES (Uses)

(cement blocks, methacrylate **copolymer-melamine** resin coatings on, alkali- and blocking-resistant)

IT Coating materials

(methacrylate **copolymers-melamine** resins, on asbestos cement boards, alkali- and blocking-resistant)

IT 9003-08-1

RL: TEM (Technical or engineered material use); USES (Uses)

(coatings, containing methacrylate **copolymer**, on cement boards, alkali- and blocking-resistant)

L80 ANSWER 29 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1974:97445 HCAPLUS

DN 80:97445

TI Coating by electrophoresis

IN Maeda, Hiroshi; Sunada, Masuyuki; Kanai, Yuji

PA Dainippon Ink and Chemicals, Inc.

SO Jpn. Tokkyo Koho, 3 pp.

CODEN: JAXXAD

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 48022831	B4	19730709	JP 1964-61865	19641102
PRAI	JP 1964-61865		19641102		

AB Coatings having good resistance to alkali, gasoline, impact, hot H<sub>2</sub>O, and corrosion are prepared by electrodeposition from an amine-substituted

condensate of an alkyd resin with a hydroxymethylated or alkoxyethylated aminoplast. Thus, an alkyd resin prepared from soybean oil **fatty acids** 350, glycerol [56-81-5] 220, phthalic anhydride [85-44-9] 420, and maleic anhydride [108-31-6] 20 parts is heated 8 hr at 50.deg. with 250 parts methoxymethylated **melamine**-formaldehyde **copolymer** [9003-08-1] and 500 parts BuOCH<sub>2</sub>CH<sub>2</sub>OH, diluted with H<sub>2</sub>O to 50% solids, neutralized to pH 8.5 with triethylamine [121-44-8], coated as a 10% solution on steel for 20 sec at 50 V, and baked 30 min at 150.deg. to give a hard, chemical resistant film.

IC C23B; C09D

CC 42-7 (Coatings, Inks, and Related Products)

ST electrophoretic coating alkyd; **melamine** resin coating; triethylamine salt resin; chem resistance coating

IT Chemically resistant materials

(alkyd resin-**melamine** resin reaction product electrophoretic coatings)

IT Coating materials

(alkyd resin-**melamine** resin reaction products, chemical resistant)

IT Coating process

(electrophoretic, of alkyd resin-**melamine** resin reaction products)

IT 1,2,3-Propanetriol, polymer with maleic anhydride, phthalic anhydride and soybean oil fatty acids, reaction products with **melamine** resins

1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde, methoxymethylated, reaction products with alkyd resins

1,3-Isobenzofurandione, polymer with glycerol, maleic anhydride and soybean oil fatty acids, reaction products with **melamine** resins

2,5-Furandione, polymer with glycerol, phthalic anhydride and soybean oil fatty acids, reaction products with **melamine** resins

Ethanamine, N,N-diethyl-, with alkyd resin-**melamine** resin reaction products

RL: USES (Uses)

(electrophoretic coatings, chemical resistant)

L80 ANSWER 30 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1972:516203 HCAPLUS

DN 77:116203

TI Aminoplast resins particularly for electrocoating

IN Sekmakas, Kazys

PA De Soto, Inc.

SO U.S., 5 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3676312	A	19720711	US 1970-19457	19700313
PRAI	US 1970-19457		19700313		
AB	A unidirectional current flowing through an aqueous electrocoating bath containing polyhydric polyether or esterified styrene-allyl alc. <b>copolymer</b> (acid value 25.1-34.5) and benzoguanamine-paraformaldehyde <b>copolymer</b> [26160-89-4]-containing aminoplast resin (acid value 9.2-29.2), prepared in the presence of butanol [71-36-3]) caused codeposition of the resins on an elec. conductive base to give a				

continuous non-blistering coating with good substrate adhesion, surface properties, and solvent and detergent resistance. Thus, benzoguanamine, (HCHO)<sub>n</sub>, BuOH, dimethylolpropionic acid, and C<sub>6</sub>H<sub>6</sub> were heated with H<sub>2</sub>O and some BuOH distillation and removal. 2-Hydroxyethoxyethanol was added as a thinner to give a 66.8% solids product(I) with Gardner viscosity Z6-Z7 (200 P), and a nonvolatile acid value 29.2. A 78.2% nonvolatile esterified polyether resin (II) with Gardner viscosity X-Y, and nonvolatile acid value 25.1, was prepared from UCAR POLYOL DCP-200 (III) [36445-75-7], soya **fatty acids**, xylol, trimellitic anhydride, MeCOEt, Et<sub>3</sub>N, and butylene oxide. A I-II blend neutralized with Et<sub>3</sub>N and deposited from an aqueous coating bath, was cured adhesion glossy continuous film with 2H-3H hardness and good EtCOME resistance and fair resistance to aqueous detergent, while a XM-1116 (methylated-ethylated **melamine** resin)-I coating blistered completely and lost substrate adhesion after immersion in aqueous detergent.

IC B01K; C23K  
NCL 204181000  
CC 42-10 (Coatings, Inks, and Related Products)

L80 ANSWER 31 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1972:502786 HCAPLUS  
DN 77:102786  
TI Composition for obtaining cellular plastic material  
IN White, Woodrow W.; Reynolds, James A.  
PA Uniroyal, Inc.  
SO Fr. Demande, 17 pp.  
CODEN: FRXXBL  
DT Patent  
LA French  
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2081878	A5	19711210	FR 1971-8325	19710310
	ZA 7101250	A	19711124	ZA 1971-1250	19710226
	NL 7103027	A	19710914	NL 1971-3027	19710308
	BE 763991	A1	19710909	BE 1971-100676	19710309
	ES 389176	A1	19730601	ES 1971-389176	19710312

PRAI US 1970-19090 19700312  
AB Aging resistant foams, useful as carpet pads and floor coverings, were prepared from a latex, e.g. acrylonitrile-butadiene **copolymer** (I) [9003-18-3], containing 3-15% reactive resin, e.g. a **melamine** resin. Thus, I latex modified with rosin and a **fatty acid**, was mixed with a phenolic antioxidant, (NH<sub>4</sub>)<sub>2</sub>HPO<sub>4</sub>, **dimethylolmelamine-trimethoxymethylolmelamine-hexamethoxymethylolmelamine** resin [36355-45-0], Al(OH)<sub>3</sub>, silicone surfactant, Na lauryl sulfate, and water, the mixture having a pH 9.1 was pulverized on a heated fabric surface, and vulcanized at 149.deg. to give a detergent resistant foam. Addition of the **melamine** resin to the latex increased the tensile strength of the product and reduced its elongation.

IC B29D  
CC 36-6 (Plastics Manufacture and Processing)  
ST carpet pad foam; **melamine** resin latex foam; butadiene latex foam; styrene latex foam; acrylonitrile latex foam  
IT Rubber, butadiene-styrene, uses and miscellaneous  
Rubber, nitrile, uses and miscellaneous  
(cellular, containing **melamine**-formaldehyde resins)  
IT 9003-56-9  
RL: USES (Uses)

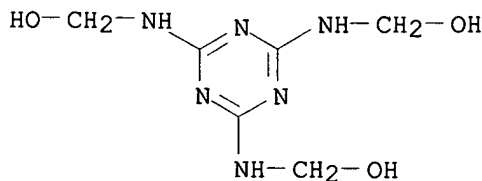
(cellular, containing **melamine**-formaldehyde resins)

L80 ANSWER 32 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1970:122865 HCAPLUS  
 DN 72:122865  
 TI Condensation products for dry impregnation of textile materials  
 IN Enders, Heinz; Singer, Heinrich; Stenzinger, Theodor  
 PA Chemische Fabrik Pfersee G.m.b.H.  
 SO Brit., 4 pp.  
 CODEN: BRXXAA  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 1186575		19700402	GB	19670505
AB	<p>Comps. were prepared for imparting H2O repellency to textile materials. Thus, <b>tetramethylolmelamine</b> 246, phthalic anhydride 148, octadecyl alc. 27 0, stearic acid 142 g, and MeOH 1320 ml were slowly heated 1 hr and the MeOH distilled off. The mixture was stirred 30 min at 160°, cooled to 120°, and a 50% solution of the resulting condensate prepared by adding C2Cl4. This solution was stable and could be diluted with C2Cl4 to a slightly opalescent solution Textiles treated with this solution had good water-repellent properties after evaporation of the solvent</p> <p>and drying. Dimethylolurea, propanol, C2Cl3H, paraffin wax, maleic anhydride, dodecanol, palmitic acid, penta-<b>methylolmelamine</b>, EtOH, succinic anhydride, hexadecyl alc., cerotic acid, and methylolethyleneurea were similarly used.</p>				
IC	C08G				
CC	39 (Textiles)				
IT	Textiles				
	(waterproofing of, hydroxymethyl nitrogenous compds. <b>copolymers</b> for)				
IT	27555-52-8	27555-53-9	27555-54-0	<b>27989-51-1</b>	
	<b>28213-49-2</b>				
	RL: USES (Uses)				
	(for waterproofing of textiles)				
IT	<b>27989-51-1 28213-49-2</b>				
	RL: USES (Uses)				
	(for waterproofing of textiles)				
RN	27989-51-1 HCAPLUS				
CN	Maleic anhydride, polymer with dodecyl alcohol, palmitic acid and (s-triazine-2,4,6-triyltriimino)trimethanol (8CI) (CA INDEX NAME)				

CM 1

CRN 1017-56-7  
 CMF C6 H12 N6 O3



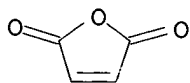
CM 2

CRN 112-53-8  
CMF C12 H26 O

HO-(CH<sub>2</sub>)<sub>11</sub>-Me

CM 3

CRN 108-31-6  
CMF C4 H2 O3



CM 4

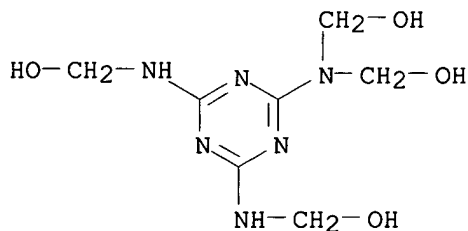
CRN 57-10-3  
CMF C16 H32 O2

HO<sub>2</sub>C-(CH<sub>2</sub>)<sub>14</sub>-Me

RN 28213-49-2 HCAPLUS  
CN Phthalic anhydride, polymer with [[6-[bis(hydroxymethyl)amino]-s-triazine-2,4-diyl]diimino]dimethanol, 1-octadecanol and stearic acid (8CI) (CA INDEX NAME)

CM 1

CRN 17600-13-4  
CMF C7 H14 N6 O4



CM 2

CRN 112-92-5  
CMF C18 H38 O

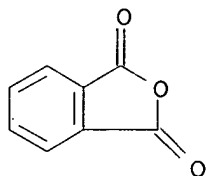


HO-(CH<sub>2</sub>)<sub>17</sub>-Me

CM 3

CRN 85-44-9

CMF C8 H4 O3



CM 4

CRN 57-11-4

CMF C18 H36 O2

HO<sub>2</sub>C-(CH<sub>2</sub>)<sub>16</sub>-Me

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